PatBase - Search results 23 January 2020
Search query (3): FT=(ELECTRICAL~ AND GENERATOR~ AND ANTIFREEZE~) AND IC= (F03B)
Results: 80

Search history

Search 1: FT=(ELECTRICAL~ AND GENERATOR~ AND WATER~ NETWORK~ AND ANTIFREEZE~) (Results 10)

Search 2: FT=(ELECTRICAL~ AND GENERATOR~ AND ANTIFREEZE~) (Results 2169)

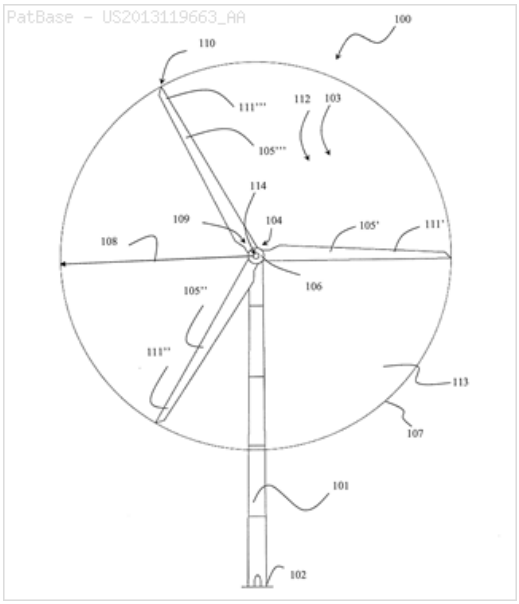
Search 3: FT=(ELECTRICAL~ AND GENERATOR~ AND ANTIFREEZE~) AND IC= (F03B) (Results 80)

1) Family number: 53672010 (US2013119663A)

Title: WIND TURBINE WITH ADDITIONAL ROTOR MOMENT OF INERTIA AND A METHOD FOR CONTROLLING A WIND TURBINE WITH ADDITIONAL ROTOR MOMENT OF INERTIA

Abstract: This invention relates to a wind turbine having an additional mass each placed between a mounting end and a free end of at least two rotor blades. This invention further relates to a method for controlling a wind turbine with a pitch system for pitching a blade in a pitch angle and with blades with a mass for increased inertia, which wind turbine is operated in a normal operation mode in which a **generator** has a **generator** speed at a **generator** torque, and which wind turbine is to remain **electrically** coupled to a grid during a low voltage condition and with supplied current specifications, torque reference, power references, or according to a grid code.

Classifications:
International (IPC 8-9)**:** F03B13/00 F03D F03D1/06 F03D11/00 F03D7/00 F03D7/02 F03D7/04 F03D80/00 F03D9/00 H02K7/18 H02P9/04 (Advanced/Invention)
CPC: F03D7/02 F03D7/0284 Y02E10/721 Y02E10/723 Y02E10/725
US: 290/43 290/44 290/54



Family:

Publication number	Publication date	Application number	Application date
CA2794725 AA	20130504	CA20122794725	20121102
CN103104415 A	20130515	CN201210437284	20121105
CN103104415 B	20150422	CN201210437284	20121105
DK177555 B1	20131007	DK20120070416	20120709
DK201170605 A5	20130505	DK20110070605	20111104
DK201270416 A5	20130505	DK20120070416	20120709
EP2589798 A2	20130508	EP20120191011	20121102
IN04563CH2012 A	20160429	IN2012CH04563	20121101
US2013119663 AA	20130516	US20120668903	20121105
US8878376 BB	20141104	US20120668903	20121105

Priority:
DK20110070605 20111104 DK20120070416 20120709 CA20122794725 20121102

Probable Assignee: ENVISION ENERGY DENMARK APS
Assignee(s): (std)**:** ENVISION ENERGY DENMARK APS ; ENVISION ENERGY JIANGSHU APS ; ENVISION ENERGY LTD
Assignee(s): BIRK JENS
Inventor(s): (std)**:** BIRK JENS ; JENS BIRK
Agent(s): MARKS AND CLERK; GREGERSEN NIELS HENRIK; DAVID S; ROBERTS MLOTKOWSKI SAFRAN AND COLE PC
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA2794725 AA	20130504	LSPB	+	published / reissued	
CA2794725 AA	20171016	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20171005
CN103104415 A	20130515	LSPB	+	published / reissued	
CN103104415 A	20130515	LSPB	+C06	PUBLICATION	
CN103104415 B	20150422	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103104415 B	20150422	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	

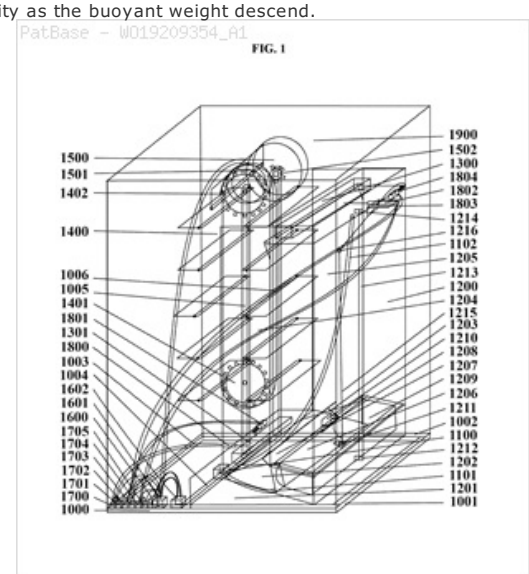
CN103104415 B	20321105	PEXP		Calculated Patent Term Expiry	
DK177555 B1	20131007	LSGT	+	granted / extensions (spc, cpc, pte)	
DK177555 B1	20320709	PEXP		Calculated Patent Term Expiry	
DK201170605 A5	20130505	LSPB	+	published / reissued	
DK201270416 A5	20130505	LSPB	+	published / reissued	
EP2589798 A2	20130508	LSPB	+	published / reissued	
EP2589798 A2	20140827	LSWD	-18W	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20140717
IN04563CH2012 A	20160429	LSPB	+	published / reissued	
US2013119663 AA	20130516	LSPB	+	published / reissued	
US2013119663 AA	20141015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8878376 BB	20141104	LSGT	+	granted / extensions (spc, cpc, pte)	
US8878376 BB	20130131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ENVISION ENERGY (DENMARK) APS, DENMARK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIRK, JENS; REEL/FRAME:029731/0814 EFFECTIVE DATE : 20121212
US8878376 BB	20141015	LSGT	PAT1	Patented Case	
US8878376 BB	20180411	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8878376 BB	20321105	PEXP		Calculated Patent Term Expiry	

2) Family number: 76356011 (WO19209354A1)

Title: BUOYANCY MOTOR AND **GENERATOR**

Abstract: Clean continuous portable self-contained energy generation and propulsion, by utilizing buoyancy which causes an object in a fluid to rise if the weight of the object is less than the weight of the volume of the fluid it displaces, where after a buoyant weight ascends to the top of a fluid container, it is pushed into an open air compartment attached to a rotatable chain, and then descends under the force of gravity, providing rotational force through the chain to power an electricity **generator**, and or rotate an axle to provide the propulsion of a traditional motor, in a repetitive cycle, where energy is captured in excess of that consumed as a result of the differential between the lack of force required for the buoyant weight to ascend and the energy captured from the force provided by gravity as the buoyant weight descend.

Classifications:
International (IPC 8-9): F03B17/02 F03B17/06 (Advanced/Invention)
CPC: F03B17/04



Family:

Publication number	Publication date	Application number	Application date
WO19209354 A1	20191031	WO2018US38233	20180619

Priority:

US20180661034P 20180422 US20180661878P 20180424

Probable Assignee: JONATHAN BANNON MAHER CORP

Assignee(s): (std): JONATHAN BANNON MAHER CORP

Inventor(s): (std): MAHER JONATHAN

Inventor(s): MAHER JONATHAN BANNON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

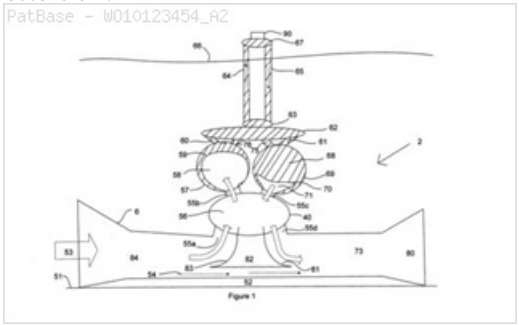
Patent	Date recorded	Event group	Code	Event	Details
WO19209354 A1	20191031	LSPB	+	published / reissued	

3) Family number: 43630015 (WO10123454A2)

Title: POWER GENERATION

Abstract: Apparatus for generating power, comprising - a first, open, unit arranged to permit a first fluid to flow through it, and - a second, closed, unit which in use is substantially filled with a second fluid, arranged so that in use the flow of the first fluid through the first unit drives the flow of the second fluid within the second unit, the apparatus further including a turbine arranged in use to be driven by the flow of the second fluid within the second unit.

Classifications:
International (IPC 8-9): F03B13/00 F03B13/26 F03B17/00 F03B17/02 F03B17/04 F03B17/06 (Advanced/Invention);
F03B13/00 F03B17/00 (Core/Invention);
F03B13/26 F03B17/06 (Core/Non-invention)
CPC: F03B13/188 F03B13/26 F05B2240/97 Y02E10/28 Y02E10/38 F03B17/06 F03B13/264 F03B17/005 F03B17/04
European: F03B13/18F F03B13/26 F03B13/26C F03B17/00B F03B17/04 F03B17/06 R05B240/97 Y02E10/28 Y02E10/38



Family:

Publication number	Publication date	Application number	Application date
GB200910056 A0	20090722	GB20090010056	20090611
GB2460763 A1	20091216	GB20090010056	20090611
GB2460763 B2	20100428	GB20090010056	20090611
SG165201 A1	20101028	SG20090002035	20090323
SG165201 A1	20101028	SG20090020355	20090323
TW201104070 A	20110201	TW20100108496	20100323
WO10123454 A2	20101028	WO2009SG00129	20090406
WO10123454 A3	20110630	WO2009SG00129	20090406

Priority:

SG20090020355 20090323

Probable Assignee: VAZ GUY ANDREW

Assignee(s): (std)**:** VAZ GUY A ; VAZ GUY ANDREW

Assignee(s): GUY ANDREW VAZ

Inventor(s): (std)**:** VAZ GUY A ; ANDREW VAZ GUY ; VAZ GUY ANDREW

Inventor(s): GUY ANDREW VAZ

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
GB2460763 A1	20091216	LSPB	+	published / reissued	
GB2460763 B2	20100428	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2460763 B2	20290611	PEXP		Calculated Patent Term Expiry	
SG165201 A1	20101028	LSPB	+	published / reissued	
SG165201 A1	20101028	LSPB	+	published / reissued	
TW201104070 A	20110201	LSPB	+	published / reissued	
WO10123454 A2	20101028	LSPB	+	published / reissued	
WO10123454 A3	20110923	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10123454 A3	20120502	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09843744 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

4) Family number: 46623019 (EP2388474A2)

Title: POWER GENERATING APPARATUS USING WATER VACUUM SYSTEM OR OTHER SIMILAR FLUID

Abstract: The invention relates to a **generator** apparatus for generating electric current by means of pressure from water or another similar fluid, comprising a circuit formed by an open tank (1) with at least one shut-off valve (2) intercalated between a collection container (4) and an upper leak-tight tank (9) provided with a motor (15) and a return pipe (14) communicating the collection container (4) with the leak-tight tank (9). The fluid acts on at least one scoop wheel, turbine or horizontal hydraulic wheel (3) linked to a flywheel (8) and gears (6) associated with an alternator (7) connected to a distribution board (16), the motor (15) being connected to the distribution board (16). Alternatively, it further incorporates a second scoop wheel, turbine or horizontal hydraulic wheel (21) coupled to a second group of gears (18) feeding a second alternator (20) linked to a second distribution board (22).

Classifications:
International (IPC 8-9): F03B17/00 F03B17/06
H02K23/00 (Advanced/Invention);
H02K23/00 (Core/Invention)
CPC: F03B17/005 Y02E10/28
European: F03B17/00B Y02E10/20 Y02E10/28

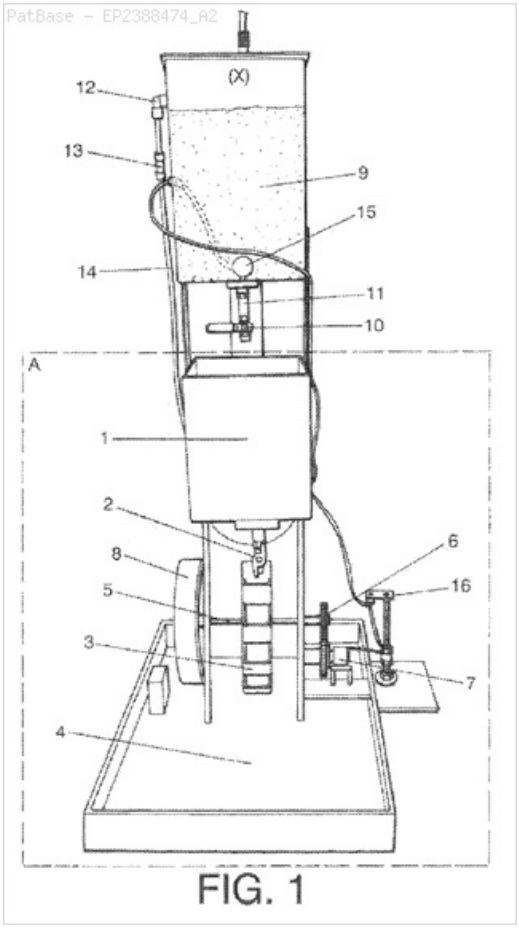


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
EP2388474 A2	20111123	EP20110166802	20110519
EP2388474 A3	20130529	EP20110166802	20110519
ES1072701 UA	20100823	ES20100030505U	20100521
ES1072701 Y1	20101217	ES20100030505U	20100521
ES1074843 UA	20110616	ES20110030432U	20110420
ES1074843 Y1	20110927	ES20110030432U	20110420

Priority:
ES20100030505U 20100521 ES20110030432U 20110420

Probable Assignee: MATEO MORAL RUBEN
Assignee(s): (std): MATEO MORAL RUBEN
Inventor(s): (std): MATEO MORAL RUBEN
Agent(s): MOLERO MORALEDA FELIPE
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP2388474 A2	20111123	LSPB	+	published / reissued	
EP2388474 A3	20140625	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20131130
ES1072701 UA	20100823	LSPB	+	published / reissued	
ES1072701 Y1	20101217	LSGT	+	granted / extensions (spc, cpc,	

				pte)	
ES1072701 Y1	20101217	LSGT	+FG1K	UTILITY MODEL GRANTED	REF DOCUMENT NUMBER : 1072701 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : Y DESIGNATED STATE(S) : EFFECTIVE DATE : 20101203
ES1072701 Y1	20140606	LSLE	-FD1K	UTILITY MODEL LAPSED	EFFECTIVE DATE : 20140606
ES1072701 Y1	20200521	PEXP		Calculated Patent Term Expiry	
ES1074843 UA	20110616	LSPB	+	published / reissued	
ES1074843 Y1	20110927	LSGT	+	granted / extensions (spc, cpc, pte)	
ES1074843 Y1	20110927	LSGT	+FG1K	UTILITY MODEL GRANTED	EFFECTIVE DATE : 20110915
ES1074843 Y1	20140606	LSLE	-FD1K	UTILITY MODEL LAPSED	EFFECTIVE DATE : 20140606
ES1074843 Y1	20210420	PEXP		Calculated Patent Term Expiry	

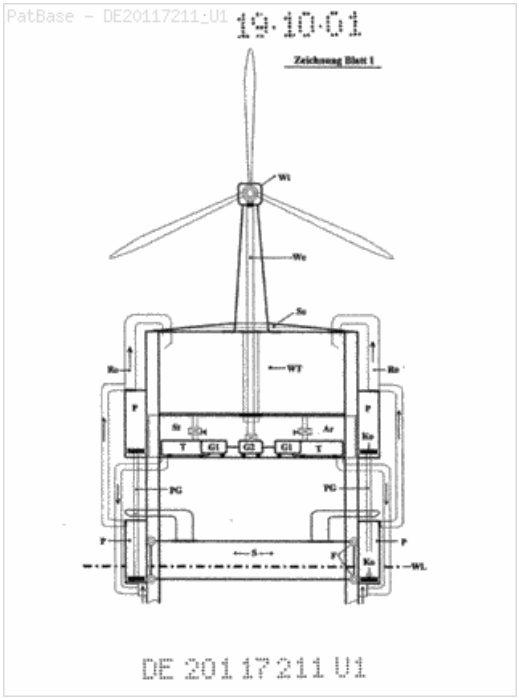
5) Family number: 23179036 (DE20117211U1)

Title: WASSER-WELLENKRAFTWERK WATER WAVE POWER PLANT (Machine translation)

Abstract: Source: DE20117211U1 [DE] (Claim 1) 1.) See oder Suess-Wasser-Wellenkraftwerk das seine Kraft aus den Wasser-Wellen,-von Wellen-Tal zu Wellen-Berg bezieht, -in dem Sinne das es die Kraft aus einzelnen,-auf einzelnen, -aufder Schwimmer in Fuehrungen Auf und Ab gleitet und deren"Oberteil"aus einem riesigen, aufgesetzen Wasser-Vorratsbehaelter (Tank) besteht. Weiterhin mit dem Merkmal, -das der oder die Schwimmer durch Hebel mit doppelt wirken- den Hub-Wasserpumpen verbunden sind die, durch den staendigen Schwimmer Hub durch die Wellen, staendig Wasser in den Tank pumpen von wo dieses gesteuert, -ueber ein Turbinen- Strom-Aggregat, das sich unterhalb des Tanks befindet, wieder ablaeuft in dem es die Turbine dreht und so elektrische Energie erzeugt die ueber ein Seekabel mit einer Landstation verbunden ist die die gelieferte Energie aufbereitet bzw. Puffert und weiterleitet. (Umspannstation). Das Wasser-Wellenkraftwerk kann Klein"oder"Gross"ausgelegt sein, -von einigen metern bis zu einigen hundert metern Seitenlaenge.

Machine translation: (Claim 1) 1.) Lake or fresh water wave power station that its Kraft from the water waves, - refers from wave valley to wave mountain, - in the sense it Kraft from individual, - on particulars, - up that float in guidance on and slides off and of them " upper section " from an enormous, up laws store of water container (tank) exists. Further with the characteristic, - which are connected to that or the floats by levers with doubly effect the stroke water pumps those, by which constant float stroke by the waves, constantly water to the tank pump of where this steered, - over a turbine **generator** set, which is underneath the tank, runs off again in that it the turbine turns and so electricity over a submarine cable with a land station is connected those produces the supplied energy prepared and/or buffers and passes on. (Transformer station). The water wave power station can be laid out small " or " large ", - from some meters to some hundred meters of side length.

Classifications:
International (IPC 8-9): F03B13/18 F03D9/00 F03D9/25 F03D9/28 H02K7/18 (Advanced/Invention);
F03B13/00 F03D9/00 H02K7/18 (Core/Invention)
International (IPC 1-7): F03B13/14 F03D9/00 H02K7/06 H02K7/18
CPC: F03B13/187 Y02E10/38 Y02E10/725 Y02P80/158 F03D9/25 F03D9/28
European: F03B13/18D10 F03D9/00F H02K7/18A2W H02K7/18B1 Y02E10/38 Y02E10/72H



Family:

Publication number	Publication date	Application number	Application date
DE20117211 U1	20020321	DE20012017211U	20011019

Priority:
DE20012017211U 20011019

Probable Assignee: KOSZLAT HEINZ

Assignee(s): (std): KOSZLAT HEINZ

Legal status (INPADOC)

View legal status timeline

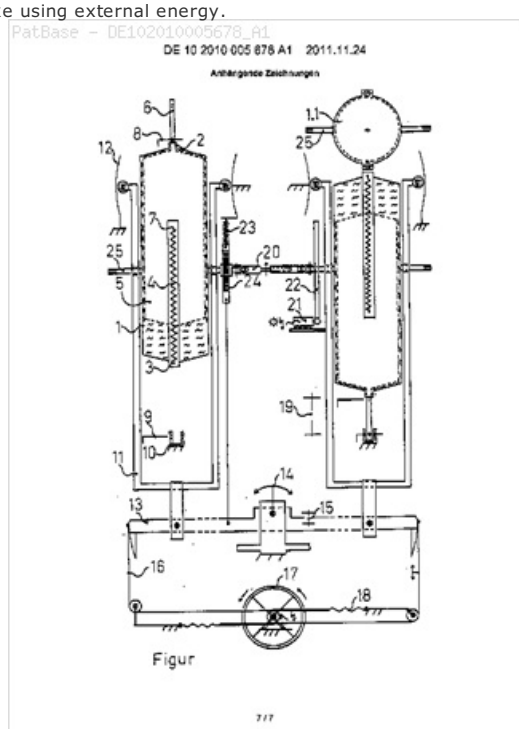
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DE20117211 U1	20020321	LSGT	+	granted / extensions (spc, cpc, pte)	
DE20117211 U1	20011019	LSLI	R086	NON-BINDING DECLARATION OF LICENSING INTEREST	
DE20117211 U1	20020321	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20020321
DE20117211 U1	20050728	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	EFFECTIVE DATE : 20050520
DE20117211 U1	20110721	LSLE	-R157	LAPSE OF IP RIGHT AFTER 6 YEARS	EFFECTIVE DATE : 20110516
DE20117211 U1	20111019	PEXP		Calculated Patent Term Expiry	

6) Family number: 49961051 (DE102010005678A1)

Title: ENERGY CREATING DEVICE FOR USE IN E.G. POWER PLANT FOR CREATING USEFUL ENERGY USING BUOYANCY AND WEIGHT FORCE OF BODIES IN E.G. LIQUIDS, HAS CLOSED CONTAINER OR FRAME ROTATED BY SOLAR DRIVE FOR PRODUCING STROKE USING EXTERNAL ENERGY

Abstract: The device has two buoys exhibiting a symmetrical structure and arranged in a closed container (1) that is rotatably mounted in a rotating frame of an open container, where the containers are filled with liquid. The two buoys are connected with the closed container through an energy storage unit (4). A stroke (19) is carried out against a reference system (10) along a piston (6) for obtaining a useful energy using an energy converter (17). The closed container or a frame is rotated by a drive i.e. solar drive (21), for producing another stroke using external energy.

Classifications:
International (IPC 8-9)**:** F03B17/02 (Advanced/Invention)
CPC: F03B17/025 Y02E10/20
European: F03B17/02B Y02E10/20



Family:

Publication number	Publication date	Application number	Application date
DE102010005678 A1	20111124	DE201010005678	20100522

Priority:
DE201010005678 20100522

Probable Assignee: IRPS HARTWIG
Assignee(s): (std)**:** IRPS HARTWIG
Assignee(s): IRPS
Inventor(s): (std)**:** IRPS HARTWIG

Legal status (INPADOC)

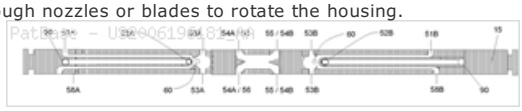
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Patent	Date recorded	Event group	Code	Event	Details
DE102010005678 A1	20111124	LSPB	+	published / reissued	
DE102010005678 A1	20110913	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102010005678 A1	20120509	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102010005678 A1	20130926	LSLI	R084	DECLARATION OF WILLINGNESS TO LICENCE	EFFECTIVE DATE : 20130729
DE102010005678 A1	20161020	LSRV	-R002	REFUSAL DECISION IN EXAMINATION/REGISTRATION PROCEEDINGS	
DE102010005678 A1	20161111	LSRV	-R003	REFUSAL DECISION NOW FINAL	

7) Family number: 33319056 (US2006196181A)

Title: NELSON FLYWHEEL POWER PLANT

Abstract: A power plant and a process of using the power plant are disclosed. The power plant is composed of a housing rotatably fixed around a stationary shaft. The shaft is ported to allow fluid flow and has projections to serve as walls of chambers holding the motive incompressible fluid in the operation of the invention. A spool with ports and channels fits within the shaft and its axial cyclic motion opens and closes the ports to permit the flow of fluids. The invention includes a means for pressurizing a compressible fluid to drive an incompressible fluid through nozzles or blades to rotate the housing.



Classifications:
International (IPC 8-9): F03B17/02 (Advanced/Invention)
CPC: F03G3/08
European: F03G3/08
US: 60/495

Family:

Publication number	Publication date	Application number	Application date
US2006196181 AA	20060907	US20050906685	20050302

Priority:

US20050906685 20050302

Probable Assignee:	NELSON RODNEY
Assignee(s): (std):	NELSON RODNEY
Inventor(s): (std):	NELSON RODNEY
Agent(s):	LOUIS VENTRE JR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2006196181 AA	20060907	LSPB	+	published / reissued	
US2006196181 AA	20081208	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

8) Family number: 56830063 (WO14105004A1)

Title: ACCURATE BUOYANCY CONTROL IN POOLS, LAKES AND OCEANS AND TO MAINTAIN FREQUENCY TO GENERATE CLEAN AC **ELECTRICAL** POWER

Abstract: The present invention relates to a control of buoyancy for attachment to large structures being lower, lifted, positioned and transported on the ocean. The present invention relates to controlling the depth and motion of buoyant force underwater. The invention generally applies to offshore floating structures used in the exploration and production of offshore minerals, such as semi-submersible vessels, tension leg platform and spur type platforms, more particularly to offshore floating structures having vertically spaced buoyancy capsule enclosed within an open cross-braced jacket framework or truss support structure including large floating offshore windmills

Classifications:
International (IPC 8-9): B63B35/44 B63C7/06 B63C7/08 E02B17/00 F03B13/14 (Advanced/Invention)
CPC: B63B2035/4466 B63C7/06 B63B35/44 B63C7/08 F03B17/025 F03B17/04 Y02E10/38

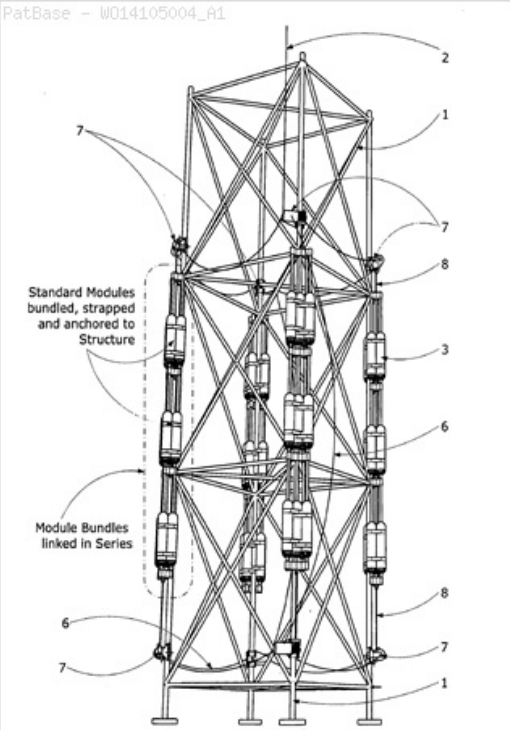


Fig. 1A View of Controlled Transportation of Structure

Family:

Publication number	Publication date	Application number	Application date
WO14105004 A1	20140703	WO2012US00587	20121227

Priority:
WO2012US00587 20121227

Probable Assignee: DAYA ARVIND A

Assignee(s): (std): DAYA ARVIND A

Inventor(s): (std): DAYA ARVIND A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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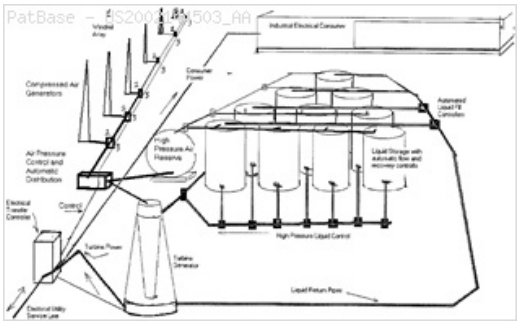
Patent	Date recorded	Event group	Code	Event	Details
WO14105004 A1	20140703	LSPB	+	published / reissued	
WO14105004 A1	20150629	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14105004 A1	20160120	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12829129 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

9) Family number: 28329069 (US2002144503A)

Title: WIND POWERED HYDROELECTRIC POWER PLANT AND METHOD OF OPERATION THEREOF

Abstract: A hydroelectric power plant uses a plurality of windmills connected to compressed air **generators** to produce pressurized air. Pressurized air is used to drive water through a turbine to produce **electrical** power. The water is recycled and the power plant includes reserve pressurized air tanks to allow the plant to continue to operate when the wind levels are not sufficient to produce high pressure air. The power plant is designed to be operated on a continuous basis based on wind power. When the wind subsides and the reserve capacity has been exhausted, electricity can be drawn from the local utility supplier. When excess power is generated by the power plant, electricity from the power plant can be added to the grid of the local electricity supplier.

Classifications:
International (IPC 8-9): F03B1/02 F03B13/06 F03D1/02 F03D9/00 F03D9/02 (Advanced/Invention)
International (IPC 1-7): F03B13/06 F03D1/02 F03D9/00 F03D9/02 F16D31/02 H02P9/04
CPC: F03D9/10 Y02E10/725 Y02E60/15 Y02E60/17 F03B13/06 Y02P80/158 Y02P90/50 Y02E10/22 F03D1/02 F03D9/25 F03D3/02 F03D9/008 F03D9/17 F03D9/28
European: F03D9/00B F03D9/00F F03D9/02 F03D9/02D Y02E10/72H Y02E60/15 Y02E60/17
US: 290/54 290/54S 60/398 60/398P 91/4R



Family:

Publication number	Publication date	Application number	Application date
AU2002254814 AA	20021028	AU20020254814	20020408
CA2443907 AA	20031010	CA20022443907	20020408
CA2443907 C	20110322	CA20022443907	20020408
CN1509373 A	20040630	CN20028009800	20020408
EP1379781 A1	20040114	EP20020724057	20020408
IN01854DN2003 A	20051216	IN2003DN01854	20031110
JP2004522046 T2	20040722	JP20020581835T	20020408
US2002144503 AA	20021010	US20010988643	20011120
US2002144504 AA	20021010	US20020116006	20020405
US6672054 BB	20040106	US20010988643	20011120
US6718761 BB	20040413	US20020116006	20020405
WO02084116 A1	20021024	WO2002CA00483	20020408
WO02084116 C2	20030320	WO2002CA00483	20020408

Priority:

US20010282500 20010410 US20010282500P 20010410 US20010988643 20011120
US20020116006 20020405 WO2002CA00483 20020408

Probable Assignee: NEW WORLD GENERATION INC

Assignee(s): (std): NEW WORLD GENERATION INC A COR ; NEW WORLD GENERATION INC

Assignee(s): NEW WORLD GENERATIONS INC ; NEW WORLD GENERATION INC PO BOX 441 232 8TH ; NEW WORLD GENERATION INC A CORP ; NEW WORLD GENERATION INCP.O. BOX 484OWEN SOUNDO1N4K 5P5CA ; GARDNER THOMAS B ; GARDNER THOMAS B144 HILLBROOK CRESCENTKITCHENERO1N2N 1J5CA ; MERSWOLKE PAUL H F ; MERSWOLKE PAUL H FR.R.#1BOGNORO1N0H 1E0CA ; MERSWOLKE PAUL HF

Inventor(s): (std): MERSWOLKE PAUL H F ; GARDNER THOMAS B ; MERSWOLKE P H F ; GARDENER T B ; TB GARDENER ; PHF MERSWOLKE

Inventor(s): T B GARDENER ; Merswolke Paul HF ; GARDNER THOMAS B144 HILLBROOK CRESCENTKITCHENERO1N2N 1J5CA ; MERSWOLKE PAUL H FR.R.#1BOGNORO1N0H 1E0CA ; P H F MERSWOLKE ; MERSWOLKE PAUL H

Agent(s): SCHNURR DARYL W; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2002254814 AA	20021028	LSPB	+	published / reissued	
CA2443907 AA	20031010	LSPB	+	published / reissued	
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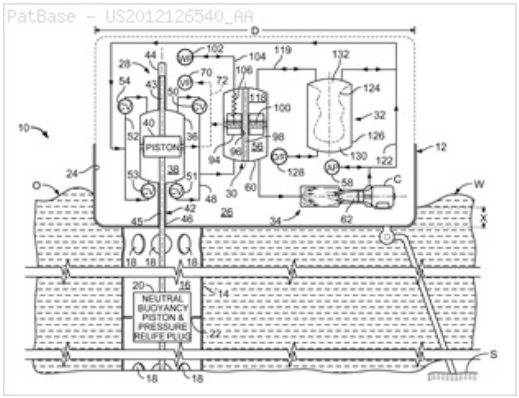
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JP2004522046 T2	20040722	LSPB	+	published / reissued	
US2002144503 AA	20021010	LSPB	+	published / reissued	
US2002144503 AA	20031218	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002144504 AA	20021010	LSPB	+	published / reissued	
US2002144504 AA	20040325	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6672054 BB	20040106	LSGT	+	granted / extensions (spc, cpc, pte)	
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US6672054 BB	20031218	LSGT	PAT1	Patented Case	
US6672054 BB	20070706	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6672054 BB	20120106	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6672054 BB	20150703	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
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US6718761 BB	20020405	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEW WORLD GENERATION INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MERSWOLKE, PAUL H.F.; GARDNER, THOMAS B.; REEL/FRAME:012763/0223 EFFECTIVE DATE : 20020403
US6718761 BB	20040325	LSGT	PAT1	Patented Case	
US6718761 BB	20071011	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6718761 BB	20111013	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6718761 BB	20150923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6718761 BB	20220604	PEXP		Calculated Patent Term Expiry (PTA 60 days)	
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WO02084116 C2	20031010	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2443907 COUNTRY OF REF DOCUMENT : CA

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WO02084116 C2	20031110	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002724057 COUNTRY OF REF DOCUMENT : EP
WO02084116 C2	20031110	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1854/DELNP/2003 COUNTRY OF REF DOCUMENT : IN
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WO02084116 C2	20040226	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO02084116 C2	20051101	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002724057 COUNTRY OF REF DOCUMENT : EP

10) Family number: 47845082 (US2012126540A)

Title: WAVE ENERGY ELECRICAL POWER GENERATION

Abstract: A wave energy electric power generation system has a buoyant body responsive to wave movement and an associated, relatively vertically stationary body, a compressor, a pressure regulator, and an impulse air turbine/**generator** set. The compressor has a piston that moves reciprocally relative to a cylinder to alternately compress air in opposed chambers. A pressure regulator tank defines a chamber in communication with the compressor for alternately receiving compressed air from opposed compression chambers, a floating piston within the tank applying pressure to compressed air in the chamber, a pressure regulator controlling pressure applied by the piston to the compressed air, and an hydraulic dampening system coupled to the floating piston to restrict unwanted vertical oscillations of the piston, for output of a continuous flow of compressed air at relatively constant pressure.



Classifications:
International (IPC 8-9)**:** E02B9/08 F03B F03B11/00 F03B13/00 F03B13/10 F03B13/12 F03B13/14 F03B13/16 F03B13/18 F03B13/20 F03B13/24 F04B35/02 (Advanced/Invention)
CPC: F03B11/006 F03B13/142 F03B13/24 F03B13/20 F05B2260/406 Y02E10/226 Y02E10/32 F03B13/187 F05B2270/301 Y02E10/38
European: F03B13/18D10 Y02E10/38
US: 1/1 290/43 290/53 290/53P 290/54 60/398 60/398S

Family:

Publication number	Publication date	Application number	Application date
CA2764486 AA	20101216	CA20102764486	20100608
CA2764486 C	20161101	CA20102764486	20100608
CA2894875 AA	20150611	CA20132894875	20131217
CA2894875 C	20190115	CA20132894875	20131217
CN102803708 A	20121128	CN201080035248	20100608
CN102803708 B	20160113	CN201080035248	20100608
CN104995398 A	20151021	CN201380072769	20131217
CN104995398 B	20180112	CN201380072769	20131217
CN107939587 A	20180420	CN201711266141	20131217
DE602013055914 D1	20190613	DE201360055914T	20131217
EP2440775 A1	20120418	EP20100786647	20100608
EP2440775 A4	20170621	EP20100786647	20100608
EP2440775 B1	20180425	EP20100786647	20100608
EP2938877 A1	20151104	EP20130868216	20131217
EP2938877 A4	20170726	EP20130868216	20131217
EP2938877 B1	20190522	EP20130868216	20131217
EP3581789 A1	20191218	EP20190175750	20131217
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JP2012529597 T2	20121122	JP20120515030T	20100608
JP2016503142 T2	20160201	JP20150550471T	20131217
JP2018013129 A2	20180125	JP20170207908	20171027
JP5684246 B2	20150311	JP20120515030T	20100608
JP6324993 B2	20180516	JP20150550471T	20131217
US2012126540 AA	20120524	US20100375921	20100608
US2013154267 AA	20130620	US20120727235	20121226
US8963352 BB	20150224	US20100375921	20100608
US9068554 BB	20150630	US20120727235	20121226
WO10144384 A1	20101216	WO2010US37682	20100608
WO14105510 A1	20140703	WO2013US75596	20131217

Priority:

US20090185413P 20090609	US20090243328P 20090917	WO2010US37682 20100608
US20100375921 20100608	WO2010US37682 20100610	US20120375921 20120131
US20120727235 20121226	CN201380072769 20131217	EP20130868216 20131217
JP20150550471T 20131217	WO2013US75596 20131217	JP20170207908 20171027

Probable Assignee: HEALY FAMILY IRREVOCABLE TRUST

Assignee(s): (std)**:** HEALY JAMES W ; JAMES W HEALY

Assignee(s): HEALY FAMILY IRREVOCABLE TRUST ; HEALY JAMES W HOLLIS

Inventor(s): (std)**:** JAMES W HEALY ; HEALY JAMES W

Inventor(s): HEALY JAMES W HOLLIS

Agent(s): SMART AND BIGGAR; FISH AND RICHARDSON PC; PETERREINS FRANK; CONROY JOHN; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; LIU SHEN AND ASSOCIATES; ONDA MAKOTO; ONDA HIRONORI; FRENCH TIMOTHY A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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CA2764486 AA	20150312	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150218
CA2764486 C	20161101	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2764486 C	20300608	PEXP		Calculated Patent Term Expiry	
CA2894875 AA	20150611	LSPB	+	published / reissued	
CA2894875 AA	20170130	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20170125
CA2894875 C	20190115	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2894875 C	20331217	PEXP		Calculated Patent Term Expiry	
CN102803708 A	20121128	LSPB	+	published / reissued	
CN102803708 A	20121128	LSPB	+C06	PUBLICATION	
CN102803708 A	20121128	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
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CN102803708 B	20160113	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN102803708 B	20191227	LSAS	TR01	专利权的转移 (Transfer of patent right)	TEXT : 专利申请权、专利权的转移 (TRANSFER OF PATENT APPLICATION OR PATENT RIGHT) PATENTEE AFTER CHANGE : 希利家族信托 (HASH LEE FAMILY TRUST) PATENTEE BEFORE CHANGE : 詹姆斯.W.希利 (JAMES S.W. HASH LEE) EFFECTIVE DATE : 20191209
CN102803708 B	20191227	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN102803708 B	20300608	PEXP		Calculated Patent Term Expiry	
CN104995398 A	20151021	LSPB	+	published / reissued	
CN104995398 A	20151021	LSPB	+C06	PUBLICATION	
CN104995398 A	20151021	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
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CN104995398 B	20180112	LSGT	+GR01	PATENT GRANT	
CN104995398 B	20191224	LSAS	TR01	专利权的转移 (Transfer of patent right)	TEXT : 专利申请权、专利权的转移 (TRANSFER OF PATENT APPLICATION OR PATENT RIGHT) PATENTEE AFTER CHANGE : 希利家族信托 (HASH LEE FAMILY TRUST) PATENTEE BEFORE CHANGE : 詹姆斯.W.希利 (JAMES S.W. HASH LEE) EFFECTIVE DATE : 20191204
CN104995398 B	20191224	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN104995398 B	20331217	PEXP		Calculated Patent Term Expiry	
CN107939587 A	20180420	LSPB	+	published / reissued	
CN107939587 A	20180420	LSPB	PB01	PUBLICATION	
CN107939587 A	20191227	LSAS	TA01	专利申请权的转移 (Transfer of patent application right)	TEXT : 专利申请权、专利权的转移 (TRANSFER OF PATENT APPLICATION OR PATENT RIGHT) APPLICANT AFTER CHANGE : 希利家族信托 (HASH LEE FAMILY TRUST) APPLICANT BEFORE CHANGE : 詹姆斯.W.希利 (JAMES S.W. HASH

					LEE) EFFECTIVE DATE : 20191210
CN107939587 A	20191227	LSAS	TA01	TRANSFER OF PATENT APPLICATION RIGHT	
EP2440775 A1	20120418	LSPB	+	published / reissued	
EP2440775 A1	20120418	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20111206
EP2440775 A4	20170621	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20170523
EP2440775 A4	20170712	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170613
EP2440775 A4	20171220	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20171121
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EP2440775 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180726
EP2440775 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20181215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 993201 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180425
EP2440775 B1	20181231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO

				INFORMATION FROM NATIONAL OFFICE TO EPO]	SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180827
EP2440775 B1	20190101	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602010050226 COUNTRY OF REF DOCUMENT : DE
EP2440775 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2440775 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190320	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A

EP2440775 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180608
EP2440775 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190403	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190128
EP2440775 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180608
EP2440775 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190101
EP2440775 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180630
EP2440775 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180630
EP2440775 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180630
EP2440775 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190625 YEAR OF FEE PAYMENT : 10
EP2440775 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190627 YEAR OF FEE PAYMENT : 10
EP2440775 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2440775 B1	20300608	PEXP		Calculated Patent Term Expiry	
EP2938877 A1	20151104	LSPB	+	published / reissued	
EP2938877 A1	20151104	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150708
EP2938877 A4	20170726	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND	EFFECTIVE DATE : 20170623

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EP2938877 A4	20170816	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170718
EP2938877 A4	20190102	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181207
EP2938877 B1	20190522	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2938877 B1	20190522	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2938877 B1	20190531	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2938877 B1	20190612	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2938877 B1	20190613	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602013055914 COUNTRY OF REF DOCUMENT : DE
EP2938877 B1	20190615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1136423 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190615
EP2938877 B1	20191010	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY

				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190922
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190822
EP2938877 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190823
EP2938877 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP2938877 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190822
EP2938877 B1	20191215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1136423 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190522
EP2938877 B1	20331217	PEXP		Calculated Patent Term Expiry	
EP3581789 A1	20191218	LSPB	+	published / reissued	
EP3581789 A1	20191218	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190521
HK1250766 A1	20190111	LSPB	+	published / reissued	
IN01854KN2015 A	20160122	LSPB	+	published / reissued	
JP2012529597 T2	20121122	LSPB	+	published / reissued	
JP2012529597 T2	20130416	LSRE	A521	WRITTEN	TEXT : JAPANESE

				AMENDMENT	INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130415
JP2012529597 T2	20130416	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130415
JP2012529597 T2	20140305	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140304
JP2012529597 T2	20141218	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012529597 T2	20150107	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150106
JP2012529597 T2	20150122	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150114
JP2012529597 T2	20150123	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5684246 COUNTRY OF REF DOCUMENT : JP
JP2016503142 T2	20160201	LSPB	+	published / reissued	
JP2016503142 T2	20160912	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160912
JP2016503142 T2	20160912	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20160912
JP2016503142 T2	20170905	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20170905
JP2016503142 T2	20171027	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20171027
JP2016503142 T2	20180319	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016503142 T2	20180327	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20180327
JP2016503142 T2	20180419	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20180411
JP2016503142 T2	20180420	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6324993 COUNTRY OF REF DOCUMENT : JP
JP2018013129 A2	20180125	LSPB	+	published / reissued	
JP2018013129 A2	20171027	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20171027
JP2018013129 A2	20181002	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20181002
JP2018013129 A2	20190507	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20190507
JP5684246 B2	20150311	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5684246 B2	20150108	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5684246 B2	20150120	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5684246 B2	20150123	LSGT	+R150	特許証 (Patent	

				certificate)	
JP5684246 B2	20180111	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5684246 B2	20180116	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5684246 B2	20190110	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5684246 B2	20190115	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5684246 B2	20190222	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5684246 B2	20190304	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5684246 B2	20190418	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5684246 B2	20190426	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5684246 B2	20200110	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200109
JP5684246 B2	20300608	PEXP		Calculated Patent Term Expiry	
JP6324993 B2	20180516	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6324993 B2	20180329	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6324993 B2	20180417	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6324993 B2	20180420	LSGT	+R150	特許証 (Patent certificate)	
JP6324993 B2	20190222	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP6324993 B2	20190304	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP6324993 B2	20190418	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP6324993 B2	20190426	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP6324993 B2	20331217	PEXP		Calculated Patent Term Expiry	
US2012126540 AA	20120524	LSPB	+	published / reissued	
US2012126540 AA	20150204	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013154267 AA	20130620	LSPB	+	published / reissued	
US2013154267 AA	20150610	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8963352 BB	20150224	LSGT	+	granted / extensions (spc, cpc, pte)	
US8963352 BB	20150204	LSGT	PAT1	Patented Case	
US8963352 BB	20180412	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US8963352 BB	20180824	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
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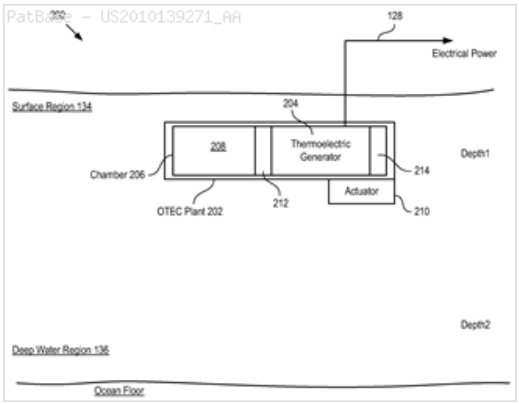
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US8963352 BB	20301231	PEXP		Calculated Patent Term Expiry (PTA 206 days)	
US9068554 BB	20150630	LSGT	+	granted / extensions (spc, cpc, pte)	
US9068554 BB	20150610	LSGT	PAT1	Patented Case	
US9068554 BB	20151117	LSRE	CC	CERTIFICATE OF CORRECTION	
US9068554 BB	20160628	LSRE	CC	CERTIFICATE OF CORRECTION	
US9068554 BB	20180412	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US9068554 BB	20181231	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9068554 BB	20191101	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE HEALY FAMILY IRREVOCABLE TRUST, DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:HEALY, JAMES W.; REEL/FRAME:050892/0330 EFFECTIVE DATE : 20121226
US9068554 BB	20331127	PEXP		Calculated Patent Term Expiry (PTA 336 days)	
WO10144384 A1	20101216	LSPB	+	published / reissued	
WO10144384 A1	20100608	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080035248.1 COUNTRY OF REF DOCUMENT : CN
WO10144384 A1	20111205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2764486 COUNTRY OF REF DOCUMENT : CA
WO10144384 A1	20111206	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010786647 COUNTRY OF REF DOCUMENT : EP
WO10144384 A1	20111208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012515030 COUNTRY OF REF DOCUMENT : JP
WO10144384 A1	20111209	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10144384 A1	20120131	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13375921 COUNTRY OF REF DOCUMENT : US
WO14105510 A1	20140703	LSPB	+	published / reissued	
WO14105510 A1	20150611	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2894875 COUNTRY OF REF DOCUMENT : CA
WO14105510 A1	20150624	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015550471 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14105510 A1	20150626	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14105510 A1	20150708	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013868216 COUNTRY OF REF DOCUMENT : EP

11) Family number: 45170083 (US2010139271A)

Title: OTEC SYSTEM

Abstract: An Ocean Thermal Energy Conversion (OTEC) system comprising a self-contained submersible OTEC plant is disclosed. The OTEC plant comprises a **electrical** generation system and a thermal mass whose temperature is based on the temperature of water at a first depth of a body of water. The OTEC plant is moved to a second depth of the body of water, wherein water at the second depth is a different temperature that the water at the first depth. The OTEC system generates **electrical** energy based on a difference in the temperatures of the water at the second depth and the temperature of the thermal mass. The OTEC system is able to generate **electrical** energy at either of the first depth and the second depth.

Classifications:
International (IPC 8-9): F03B17/02 F03G7/04 F03G7/05 F03G7/06 F03G7/08 (Advanced/Invention);
F03G7/00 (Core/Invention)
CPC: F03G7/05 Y02E10/34
European: F03G7/05 Y02E10/34
US: 290/1.00R 290/1R 290/52 290/52S 60/496 60/641.6 60/641.7 60/641.700P



Family:

Publication number	Publication date	Application number	Application date
US2010139271 AA	20100610	US20080328656	20081204
US8146362 BB	20120403	US20080328656	20081204

Priority:

US20080328656 20081204

Probable Assignee: LOCKHEED MARTIN CORP

Assignee(s): (std): HOWARD ROBERT JAMES ; LOCKHEED CORP ; MEYER LAURIE E ; NAGURNY NICHOLAS J ; RAPP JOHN W

Assignee(s): LOCKHEED MARTIN CORP

Inventor(s): (std): NAGURNY NICHOLAS J ; MEYER LAURIE E ; RAPP JOHN W ; HOWARD ROBERT JAMES

Agent(s): LOCKHEED MARTIN C O DEMONT AND BREYER LLC; DEMONT AND BREYER LLC

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2010139271 AA	20100610	LSPB	+	published / reissued	
US2010139271 AA	20120314	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8146362 BB	20120403	LSGT	+	granted / extensions (spc, cpc, pte)	
US8146362 BB	20081223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LOCKHEED MARTIN CORPORATION,MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HOWARD, ROBERT JAMES; NAGURNY, NICHOLAS J.; MEYER, LAURIE E.; AND OTHERS; REEL/FRAME:022025/0170 EFFECTIVE DATE : 20081105
US8146362 BB	20081223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LOCKHEED MARTIN CORPORATION, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HOWARD, ROBERT JAMES; NAGURNY, NICHOLAS J.; MEYER, LAURIE E.; AND OTHERS; REEL/FRAME:022025/0170 EFFECTIVE DATE : 20081105
US8146362 BB	20120314	LSGT	PAT1	Patented Case	
US8146362 BB	20151005	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

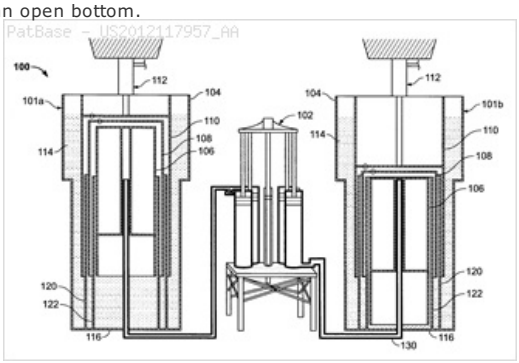
US8146362 BB	20191003	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8146362 BB	20300609	PEXP		Calculated Patent Term Expiry (PTA 552 days)	

12) Family number: 51097098 (US2012117957A)

Title: APPARATUS UTILIZING BUOYANCY FORCES AND METHOD FOR USING SAME

Abstract: An apparatus has a tank with an open top, a tank wall, and a closed bottom. A first ringwall extends from the bottom such that a first annular space is defined by the first ringwall and the tank wall, and a second annular space is defined by the first ringwall. A second ringwall extends in the second annular space, and defines a third annular space between the first ringwall and the second ringwall, and a cylindrical space. An air conduit extends through the cylindrical space. A pod disposed into the cylindrical space has a closed chamber and a displacement chamber. An inner riser disposed in the third annular space has an open bottom, and rests onto the inner ringwall. An outer riser rests onto the outer ringwall and is disposed in the first annular space and has a closed top, a wall, and an open bottom.

Classifications:
International (IPC 8-9): F03B F03B13/00 F03B13/06 F03B17/02 F03B17/04 F15B1/04 F15B15/02 F15B15/16 F15B3/00 (Advanced/Invention);
F03B (Subclass/Invention)
CPC: F15B3/00 F15B15/16 Y02E60/17 F15B1/04
European: F15B15/16 F15B3/00
US: 1/1 60/325 60/325P 60/398 60/413 60/495



Family:

Publication number	Publication date	Application number	Application date
AU2011326515 AA	20120518	AU20110326515	20111109
AU2011326515 AA	20130620	AU20110326515	20111109
AU2011326515 BB	20151203	AU20110326515	20111109
CA2828481 AA	20130827	CA20112828481	20111109
CA2828481 C	20180206	CA20112828481	20111109
CN103339374 A	20131002	CN201180064230	20111109
CN103339374 B	20151209	CN201180064230	20111109
DK2638278 T3	20191118	DK20110840178T	20111109
EA027589 B1	20170831	EA20130090647	20111109
EA027589 B9	20180131	EA20130090647	20111109
EA201390647 A1	20131129	EA20130090647	20111109
EP2638278 A2	20130918	EP20110840178	20111109
EP2638278 A4	20171115	EP20110840178	20111109
EP2638278 B1	20190807	EP20110840178	20111109
HK1190180 A1	20140627	HK20140103094	20140401
HK1190180 A1	20161202	HK20140103094	20140401
HK1190180 B	20161202	HK20140103094	20140401
IN01760KN2013 A	20131018	IN2013KN01760	20130603
JP2014500446 T2	20140109	JP20130538862T	20111109
JP5924551 B2	20160525	JP20130538862T	20111109
NZ611329 A	20140627	NZ20110611329	20111109
US2012117957 AA	20120517	US20110292954	20111109
US2015068199 AA	20150312	US20140543337	20141117
US8887497 BB	20141118	US20110292954	20111109
US9574577 BB	20170221	US20140543337	20141117
WO12064877 A2	20120518	WO2011US60036	20111109
WO12064877 A3	20120712	WO2011US60036	20111109
ZA201303987 A	20140226	ZA20130003987	20130531

Priority:

US20100411772P 20101109 US20110292954 20111109 WO2011US60036 20111109 US20140543337 20141117

Probable Assignee: TRAVI WAYNE

Assignee(s): (std): TRAVI WAYNE ; TRAVIS WAYNE ; TRAVIS WAYNE S

Inventor(s): (std): TRAVIS WAYNE S ; TRAVIS WAYNE S S

Inventor(s): TRAVIS WAYNE

Agent(s): ACACIA LAW; MACPHERSON LESLIE AND TYERMAN LLP; MLT AIKINS LLP; TOMKINSON ALEXANDRA; CHINA PATENT AGENT HK LTD; DUNLAP CODDING PC; ROUSE NICHOLAS D

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2011326515 AA	20120518	LSPB	+	published / reissued	
AU2011326515 AA	20130620	LSPB	+	published / reissued	

AU2011326515 BB	20151203	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011326515 BB	20160331	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2011326515 BB	20311109	PEXP		Calculated Patent Term Expiry	
CA2828481 AA	20130827	LSPB	+	published / reissued	
CA2828481 AA	20161011	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20161006
CA2828481 C	20180206	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2828481 C	20311109	PEXP		Calculated Patent Term Expiry	
CN103339374 A	20131002	LSPB	+	published / reissued	
CN103339374 A	20131002	LSPB	+C06	PUBLICATION	
CN103339374 B	20151209	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103339374 B	20151209	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103339374 B	20161202	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1190180 COUNTRY OF REF DOCUMENT : HK
CN103339374 B	20311109	PEXP		Calculated Patent Term Expiry	
DK2638278 T3	20191118	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2638278 T3	20311109	PEXP		Calculated Patent Term Expiry	
EA027589 B1	20170831	LSGT	+	granted / extensions (spc, cpc, pte)	
EA027589 B1	20311109	PEXP		Calculated Patent Term Expiry	
EA027589 B9	20180131	LSGT	+	granted / extensions (spc, cpc, pte)	
EA027589 B9	20180131	LSPB	TH4A	PUBLICATION OF THE CORRECTED SPECIFICATION TO EURASIAN PATENT	
EA027589 B9	20180731	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	COUNTRY OF REF DOCUMENT : AM COUNTRY OF REF DOCUMENT : BY COUNTRY OF REF DOCUMENT : KG COUNTRY OF REF DOCUMENT : KZ COUNTRY OF REF DOCUMENT : MD COUNTRY OF REF DOCUMENT : TJ COUNTRY OF REF DOCUMENT : TM
EA027589 B9	20311109	PEXP		Calculated Patent Term Expiry	
EA201390647 A1	20131129	LSPB	+	published / reissued	
EP2638278 A2	20130918	LSPB	+	published / reissued	
EP2638278 A2	20130918	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130603
EP2638278 A4	20171115	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20171018
EP2638278 A4	20190327	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190227
EP2638278 B1	20190807	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2638278 B1	20190807	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2638278 B1	20190815	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2638278 B1	20190815	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT

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EP2638278 B1	20190829	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011061155 COUNTRY OF REF DOCUMENT : DE
EP2638278 B1	20190904	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2638278 B1	20191118	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20190807
EP2638278 B1	20191227	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2638278 B1	20311109	PEXP		Calculated Patent Term Expiry	
HK1190180 A1	20140627	LSPB	+	published / reissued	
HK1190180 A1	20161202	LSPB	+	published / reissued	
HK1190180 A1	20340401	PEXP		Calculated Patent Term Expiry	
HK1190180 A1	20340401	PEXP		Calculated Patent Term Expiry	
HK1190180 B	20161202	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1190180 B	20340401	PEXP		Calculated Patent Term Expiry	
IN01760KN2013 A	20131018	LSPB	+	published / reissued	
JP2014500446 T2	20140109	LSPB	+	published / reissued	
JP2014500446 T2	20141115	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20141027
JP2014500446 T2	20150126	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150106
JP2014500446 T2	20151006	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20151006
JP2014500446 T2	20151022	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20151022
JP2014500446 T2	20160310	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014500446 T2	20160322	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20160322
JP2014500446 T2	20160428	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20160406

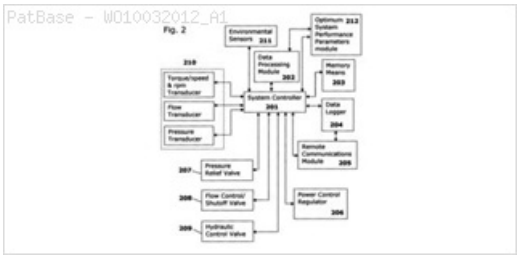
JP2014500446 T2	20160428	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5924551 COUNTRY OF REF DOCUMENT : JP
JP5924551 B2	20160525	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5924551 B2	20160324	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5924551 B2	20160426	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5924551 B2	20160428	LSGT	+R150	特許証 (Patent certificate)	
JP5924551 B2	20190516	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5924551 B2	20190521	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5924551 B2	20311109	PEXP		Calculated Patent Term Expiry	
NZ611329 A	20140627	LSPB	+	published / reissued	
NZ611329 A	20141031	LSGT	+PSEA	PATENT SEALED	
NZ611329 A	20150828	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 09 NOV 2016 BY APPLIED PATENTS INC. EFFECTIVE DATE : 20150821
NZ611329 A	20160930	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 09 NOV 2017 BY DALE W BRADLEY EFFECTIVE DATE : 20160913
NZ611329 A	20171027	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 09 NOV 2018 BY MARY WEGNER EFFECTIVE DATE : 20171005
NZ611329 A	20181026	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 09 NOV 2019 BY APPLIED PATENTS INC EFFECTIVE DATE : 20181011
NZ611329 A	20191025	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 09 NOV 2020 BY APPLIED PATENTS INC EFFECTIVE DATE : 20191019
US2012117957 AA	20120517	LSPB	+	published / reissued	
US2012117957 AA	20141029	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015068199 AA	20150312	LSPB	+	published / reissued	
US2015068199 AA	20170201	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8887497 BB	20141118	LSGT	+	granted / extensions (spc, cpc, pte)	
US8887497 BB	20141029	LSGT	PAT1	Patented Case	
US8887497 BB	20150825	LSRE	CC	CERTIFICATE OF CORRECTION	
US8887497 BB	20180516	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8887497 BB	20330606	PEXP		Calculated Patent Term Expiry (PTA 575 days)	

US9574577 BB	20170221	LSGT	+	granted / extensions (spc, cpc, pte)	
US9574577 BB	20170201	LSGT	PAT1	Patented Case	
US9574577 BB	20350418	PEXP		Calculated Patent Term Expiry (PTA 152 days and a terminal disclaimer has been filed)	
WO12064877 A2	20120518	LSPB	+	published / reissued	
WO12064877 A3	20130508	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013538862 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12064877 A3	20130510	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12064877 A3	20130531	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201390647 COUNTRY OF REF DOCUMENT : EA
WO12064877 A3	20130603	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011840178 COUNTRY OF REF DOCUMENT : EP
WO12064877 A3	20130620	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011326515 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20111109 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12064877 A3	20130827	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2828481 COUNTRY OF REF DOCUMENT : CA
ZA201303987 A	20140226	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201303987 A	20330530	PEXP		Calculated Patent Term Expiry	

13) Family number: 42548105 (WO10032012A1)

Title: SYSTEM AND METHOD FOR HYDRAULIC POWER TRANSFER

Abstract: A system and method for hydraulic power transfer is described which provides a step-up power transfer system in which high torque and tow rpm generate an output of high rpm. The system according to the invention can provide an improved method for power transfer in wind and wave turbines. The method makes possible the creation of a new class of wind and wave turbines having no mechanical gearbox which are lighter, cheaper, and more robust and which are easier and more efficient to service. One or a plurality of hydraulic pumps with a high hydraulic power ratio configured as a pump is/are coupled to the turbine shaft and connected hydraulically to one or more hydraulic pumps each configured as a motor having a low ratio or ratio of unity to drive the shaft of an electric **generator** and thereby generate power. A control system optimizes the operational parameters of the system, regulating the hydraulic fluid flow through the system via a servo control or control valve to constrict the hydraulic channel and or varies the power taken from, or delivered to, the **generator** to regulate the **electrical** power output to a predetermined frequency over a range of wind speeds/wave height displacements. A dosed or open loop system using one or more hydraulic fluid reservoirs is used to maintain the fluid volume in the system. In one arrangement, a plurality of turbines may be integrated together hydraulically with non-reverse valves to drive a single **generator**.



Classifications:
International (IPC 8-9): F03B13/18 F03D11/02 F16H61/40 F16H61/46 (Advanced/Invention); F16H61/00 (Advanced/Non-invention); F03B13/00 F03D11/00 F16H61/40 (Core/Invention); F16H61/00 (Core/Non-invention)
CPC: F16H61/4148 F03B13/06 F05B2260/40 F16H61/4035 F16H61/4043 F16H61/461 F16H61/475 F16H2059/6846 F16H2059/6861 F16H2061/0078 Y02E10/22 Y02E10/38 Y02E10/722 Y02E60/17 Y02P70/523 F03D15/00
European: F03B13/06 F03D11/02 F16H61/4035 F16H61/4043 F16H61/4148 F16H61/46B F16H61/475 R05B260/40 R16H61/00Y1 Y02E10/22 Y02E10/38 Y02E10/72 Y02E10/72D Y02E60/17

Family:

Publication number	Publication date	Application number	Application date
GB200817202 A0	20081029	GB20080017202	20080919
WO10032012 A1	20100325	WO2009GB02228	20090917

Priority:
GB20080017202 20080919

Probable Assignee: WESBY PHILIP B

Assignee(s): (std): TARGONSKI ROY ; WESBY PHILIP ; WESBY PHILIP B

Inventor(s): (std): TARGONSKI ROY ; WESBY PHILIP

Agent(s): WESBY PHILIP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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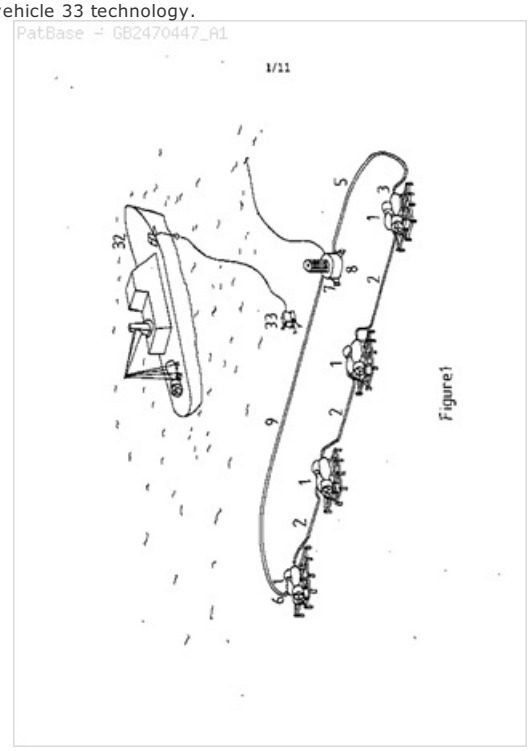
Patent	Date recorded	Event group	Code	Event	Details
GB200817202 A0	20100317	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
WO10032012 A1	20100325	LSPB	+	published / reissued	
WO10032012 A1	20110322	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10032012 A1	20111109	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09740914 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

14) Family number: 44313134 (GB2470447A)

Title: Paired tidal turbines drive pumps connected in series

Abstract: A system of sea bed mounted tidal / marine current turbine driven pumps 1 is connected by submerged pipes 2, 5, 9 to drive a power generation turbine 8. The turbines 1 may be ducted and may be mounted in opposite facing pairs. The turbines 1 may drive the associated pump via gearing and a one-way clutch, so that only the turbine facing the flow direction will generate power. The pumps may be connected hydraulically in series. Installation, maintenance and construction is achieved by use of subsea support vessel 32 and remote operated vehicle 33 technology.

Classifications:
International (IPC 8-9): F03B13/26 (Advanced/Invention)
CPC: F03B13/264 F03B13/266 F05B2240/97 Y02E10/28
European: F03B13/26C F03B13/26D R05B240/97 Y02E10/28



Family:

Publication number	Publication date	Application number	Application date
GB200920506 A0	20100106	GB20090020506	20091123
GB2470447 A1	20101124	GB20090020506	20091123
GB2470447 B2	20111012	GB20090020506	20091123

Priority:
GB20090020506 20091123

Probable Assignee: DONNELL JAMES O
Assignee(s): (std): DONNELL JAMES O ; MICROGEN TECHNOLOGIES LTD ; O DONNELL JAMES
Assignee(s): JAMES O DONNELL
Inventor(s): (std): O DONNELL JAMES
Inventor(s): JAMES O DONNELL

Legal status (INPADOC)

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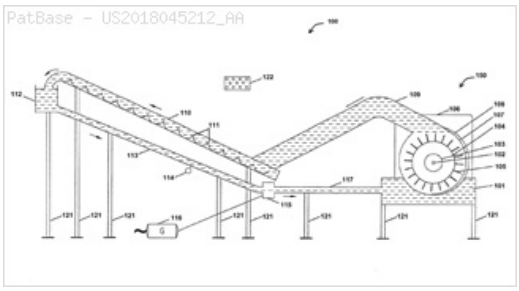
Patent	Date recorded	Event group	Code	Event	Details
GB2470447 A1	20101124	LSPB	+	published / reissued	
GB2470447 A1	20170726	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20161123
GB2470447 B2	20111012	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2470447 B2	20291123	PEXP		Calculated Patent Term Expiry	

15) Family number: 68580182 (US2018045212A)

Title: SYSTEMS AND METHODS FOR GENERATING CLEAN ENERGY THROUGH HYDRODYNAMIC CLOSED CYCLE

Abstract: Systems for pumping water are described. The system can include a covered pool containing a first volume of water, an oared water pump with a plurality of radial oars, a reservoir and a hydro turbine system. The system can include a first portion of the plurality of radial oars that can be substantially disposed with the first volume of water contained by the covered pool and can also include a second portion of the plurality of radial oars that can be substantially disposed outside of the first volume of water contained in the covered pool. The oared pump can be configured to pump a portion of the first volume of water out of the covered pool. The reservoir can be configured in fluid communication with the covered pool, and can receive a portion of the first volume of water that can be pumped out of the covered pool by the oared pump. The reservoir can also be configured to allow a second volume of water to flow from the reservoir into the covered pool. The hydro turbine system can be configured to generate electric power based on the second volume of water flowing into the covered pool from the reservoir.

Classifications:
International (IPC 8-9): F03B17/00 F04D1/00 F04D13/02 F04D13/06 F04D29/043 F04D29/22 F04D29/42 (Advanced/Invention); F04D1/00 (Advanced/Non-invention)
CPC: F03B17/005 F04D13/12 F04D1/00 F04D13/021 F04D13/06 F04D29/043 F04D29/22 F04D29/426
US: 1/1 415/123



Family:

Publication number	Publication date	Application number	Application date
US2018045212 AA	20180215	US20170668398	20170803
US2018347580 AA	20181206	US20180057399	20180807
US10072668 BB	20180911	US20170668398	20170803

Priority:
US20160494482P 20160811 US20170668398 20170803 US20180057399 20180807

Probable Assignee: MALOYAN ARMAN ZHORA

Assignee(s): (std): ARMAN ZHORA MALOYAN ; MALOYAN ARMAN ZHORA ; RUZAN ARMAN MALOYAN ; MALOYAN ZHORA HOVSEP

Assignee(s): MALOYAN ZHORA ARMAN ; YEGHIKYAN VARAZDAT GEVORG ; MALOYAN EDGAR ARMAN ; MALOYAN RUZAN ARMAN

Inventor(s): (std): MALOYAN ARMAN ZHORA ; MALOYAN ZHORA HOVSEP

Agent(s): MORRISON AND FOERSTER LLP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US10072668 BB	20180911	LSGT	+	granted / extensions (spc, cpc, pte)	
US10072668 BB	20180823	LSGT	PAT1	Patented Case	
US10072668 BB	20181130	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO MICRO (ORIGINAL EVENT CODE: MICR); ENTITY STATUS OF PATENT OWNER: MICROENTITY
US10072668 BB	20190219	LSRE	CC	CERTIFICATE OF CORRECTION	
US10072668 BB	20370803	PEXP		Calculated Patent Term Expiry	
US2018045212 AA	20180215	LSPB	+	published / reissued	
US2018045212 AA	20180514	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018045212 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MALOYAN, ARMAN ZHORA, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MALOYAN, ZHORA HOVSEP; MALOYAN, ARMAN ZHORA; REEL/FRAME:046570/0996 EFFECTIVE DATE : 20180728
US2018045212 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YEGHIKYAN, VARAZDAT GEVORG, CALIFORNIA

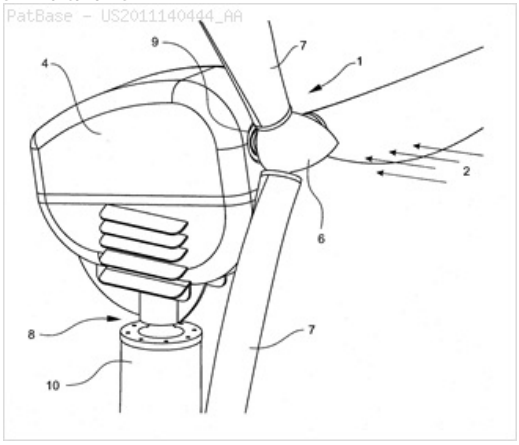
					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MALOYAN, ZHORA HOVSEP; MALOYAN, ARMAN ZHORA; REEL/FRAME:046570/0996 EFFECTIVE DATE : 20180728
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US2018045212 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MALOYAN, EDGAR ARMAN, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MALOYAN, ZHORA HOVSEP; MALOYAN, ARMAN ZHORA; REEL/FRAME:046570/0996 EFFECTIVE DATE : 20180728
US2018045212 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MALOYAN, RUZAN ARMAN, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MALOYAN, ZHORA HOVSEP; MALOYAN, ARMAN ZHORA; REEL/FRAME:046570/0996 EFFECTIVE DATE : 20180728
US2018045212 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MALOYAN, ZHORA HOVSEP, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MALOYAN, ZHORA HOVSEP; MALOYAN, ARMAN ZHORA; REEL/FRAME:046570/0996 EFFECTIVE DATE : 20180728
US2018045212 AA	20180807	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018045212 AA	20180823	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018347580 AA	20181206	LSPB	+	published / reissued	
US2018347580 AA	20191018	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	

16) Family number: 49093192 (US2011140444A)

Title: WIND TURBINE WITH IMPROVED COOLING

Abstract: A wind turbine with improved cooling, which provides liquid cooling for a wind turbine with a completely closed or at least partially closed cooling circuit, with which the heat to be dissipated from the cooling circuit is dissipated by a nacelle of the wind turbine. The wind turbine with improved cooling dissipates energy losses from heat and applied for the conversion of kinetic energy of wind into mechanical and **electrical** energy of the wind turbine.

Classifications:
International (IPC 8-9): F03B15/06 F03D9/00 (Advanced/Invention)
CPC: Y10S415/908 F05B2240/14 F05B2260/2241 Y02E10/726 Y02P80/158 F03D80/60
European: F03D11/00 R05B240/14 R05B260/20 R05B260/2241 Y02E10/22D Y02E10/72 Y02E10/72J
US: 290/55 290/55P 415/178 415/220 415/4.5 415/908



Family:

Publication number	Publication date	Application number	Application date
US2011140444 AA	20110616	US20100906078	20101016
US7963743 BA	20110621	US20100906078	20101016

Priority:
US20100906078 20101016

Probable Assignee:	WINTER CURT B
Assignee(s): (std):	WINTER CURT B
Inventor(s): (std):	WINTER CURT B
Agent(s):	DONALD J

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2011140444 AA	20110616	LSPB	+	published / reissued	
US7963743 BA	20110621	LSGT	+	granted / extensions (spc, cpc, pte)	
US7963743 BA	20110601	LSGT	PAT1	Patented Case	
US7963743 BA	20110601	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7963743 BA	20141128	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7963743 BA	20190211	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: MICROENTITY
US7963743 BA	20190729	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: MICROENTITY
US7963743 BA	20190729	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7963743 BA	20190729	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7963743 BA	20190820	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20190621
US7963743 BA	20301016	PEXP		Calculated Patent	

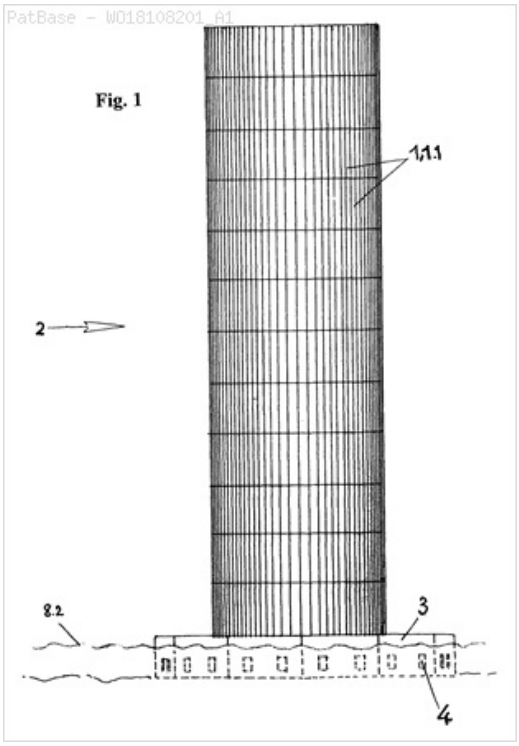
Term Expiry

17) Family number: 70079193 (WO18108201A1)

Title: PUMPED-STORAGE POWER PLANT

Abstract: The invention relates to a pumped-storage power plant, comprising an upper reservoir in the form of a container (2), a circular-cylindrical container wall (2.1), a base and a cover, wherein the water that can be introduced into the container by means of at least one pump (9.1) via at least one pressurized water line (15) can be derived for generating power by means of at least one turbine (9) into a lower reservoir, wherein the single- or multi-layer container wall (2.1, 2.1.1) consists of vertical pipes (1, 1.1) having a prismatic casing and the same height, wherein adjacent pipes (1, 1.1) are connected to each other and lie flat to one another to form a structural body with the inclusion of at least one vertically extending seal (24).

Classifications:
International (IPC 8-9): E02B9/00 E04H12/30 F03B13/06 (Advanced/Invention)
CPC: E04H12/30 F03B13/06 F05B2240/40 F05B2240/91 F05B2250/231 Y02E10/22 Y02E60/17



Family:

Publication number	Publication date	Application number	Application date
DE102016015099 A1	20180614	DE201610015099	20161213
DE112017006235 A5	20190919	DE201711006235T	20171213
WO18108201 A1	20180621	WO2017DE000429	20171213

Priority:
DE201610015099 20161213 WO2017DE000429 20171213

Probable Assignee: GOSSEN ULRIKE

Assignee(s): (std): GOSSEN ULRIKE

Inventor(s): (std): GOSSEN HANS GERD

Agent(s): KIETZMANN MANFRED

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE102016015099 A1	20180614	LSPB	+	published / reissued	
DE102016015099 A1	20190517	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102016015099 A1	20190613	LSDW	-R118	APPLICATION DEEMED WITHDRAWN DUE TO CLAIM FOR DOMESTIC PRIORITY	
DE112017006235 A5	20190919	LSPB	+	published / reissued	
DE112017006235 A5	20190723	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
WO18108201 A1	20180621	LSPB	+	published / reissued	
WO18108201 A1	20190919	LSNP	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R225

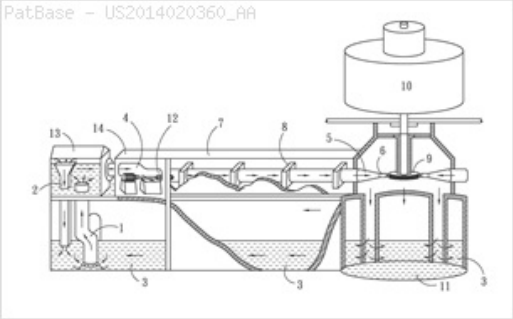
					REF DOCUMENT NUMBER : 112017006235 COUNTRY OF REF DOCUMENT : DE
WO18108201 A1	20200108	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 17849840 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

18) Family number: 52073196 (US2014020360A)

Title: POWER GENERATION SYSTEM UTILIZING CIRCULATORY WATER FLOW IN TAPER CONDUIT

Abstract: A power **generator** system utilizing the jet power of circulatory water flow in taper conduits is provided. The system comprises four jet components (10,20,30,40), a Pelton turbine **generators** and a pumping-up tail water circulation device. The jet components (10,20,30,40) comprises a taper conduits. The taper conduit is combined by a front big diameter conduit (12), a middle 30 degrees taper conduit (5), and a rear small diameter nozzle (6). A horizontal high pressured pump (4) is provided in the front big diameter conduit (12), and supplies enough power to the water flow in the conduit when it runs. The taper conduit (5) can increase the velocity of water flow to form high speed jet flow of the rear small diameter nozzle (6). The group of Pelton turbine **generators** is driven to generate electricity by utilizing the jet flow. The pumping-up tail water circulation device pumps the tail water from the sealed tail water pond to the ground, to circularly supply the water needed by the taper conduit.

Classifications:
International (IPC 8-9): F03B1/00 F03B17/02 F03B17/04 H02K7/18 (Advanced/Invention); F03B17/04 (Advanced/Non-invention)
CPC: Y02E10/223 F03B17/005 F03B17/02 F03B1/00
European: F03B1/00 F03B17/00B
US: 415/80 60/221



Family:

Publication number	Publication date	Application number	Application date
CN103180604 A	20130626	CN201180045003	20110325
US2014020360 AA	20140123	US20110824937	20110325
WO12129717 A1	20121004	WO2011CN00503	20110325

Priority:
WO2011CN00503 20110325

Probable Assignee: TENG CHING SHIH
Assignee(s): (std): TENG CHING SHIH
Inventor(s): (std): TENG CHING SHIH
Agent(s): CN KNOWHOW INTELLECTUAL PROPERTY AGENT LIMITED
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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CN103180604 A	20130626	LSPB	+C06	PUBLICATION	
CN103180604 A	20160622	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
US2014020360 AA	20140123	LSPB	+	published / reissued	
US2014020360 AA	20160726	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO12129717 A1	20121004	LSPB	+	published / reissued	
WO12129717 A1	20130925	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12129717 A1	20131007	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13824937 COUNTRY OF REF DOCUMENT : US
WO12129717 A1	20140423	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 11862581 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT :

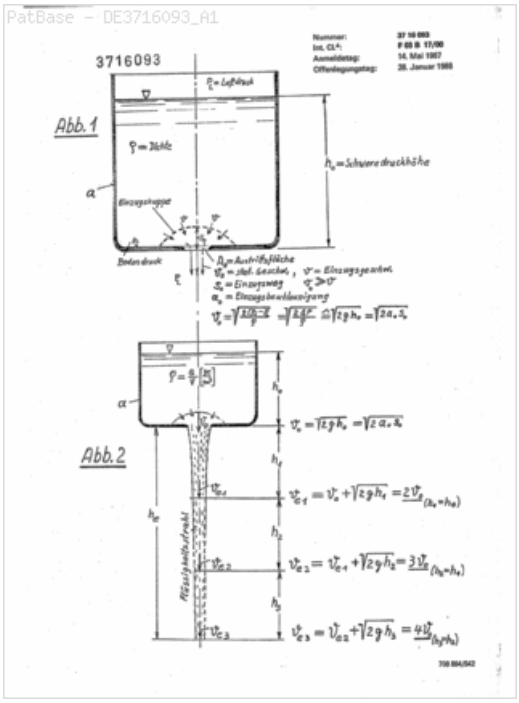
A1
DESIGNATED
STATE(S) :

19) Family number: 6360209 (DE3716093A1)

Title: CYCLIC PROCESS FOR EXTRACTING TECHNICAL WORK FROM THE EARTH'S GRAVITATIONAL FIELD

Abstract: The invention concerns a cyclic process for converting gravitational field energy into technically utilisable energy by means of a liquid mass, e.g. water, guided vertically in a cycle, in particular for driving water turbines, and for generating electricity in stationary power stations via **electrical** **generators**. The precondition for extracting technical work from the earth's gravitational field is that the mass of liquid to be accelerated reaches a higher speed and thus a higher kinetic energy due to gravity than a solid mass of equal weight, e.g. a metal ball, would reach from the same height of fall. This precondition is achieved according to the invention with a liquid mass, e.g. water, by accelerating it vertically downward one after another and independent of one another by means of gravity, on the basis of the superposition principle. This is done by first accelerating it from a state of rest out of a round opening in the bottom of a storage vessel at constant gravitational pressure head ho with the gravitational pressure acceleration ao (ao> g) to the static initial velocity vo, and then the resultant jet of liquid in a guide tube open on both sides with a cross-section continuously adjusted to the speed of fall... Original abstract incomplete.

Classifications:
International (IPC 8-9): F03B17/00 (Advanced/Invention); F03B17/00 (Core/Invention)
International (IPC 1-7): F03B17/00
CPC: F03B17/005
European: F03B17/00B Y02E10/20



Family:

Publication number	Publication date	Application number	Application date
DE3716093 A1	19880128	DE19873716093	19870514

Priority:
DE19873716093 19870514

Probable Assignee:	GENSWEIN ALFONS DIPL ING FH
Assignee(s): (std):	GENSWEIN ALFONS DIPL ING FH
Assignee(s):	GENSWEIN ALFONS DIPL ING
Inventor(s):	VERZICHT DES ERFINDERS AUF NENNUNG

Legal status (INPADOC)

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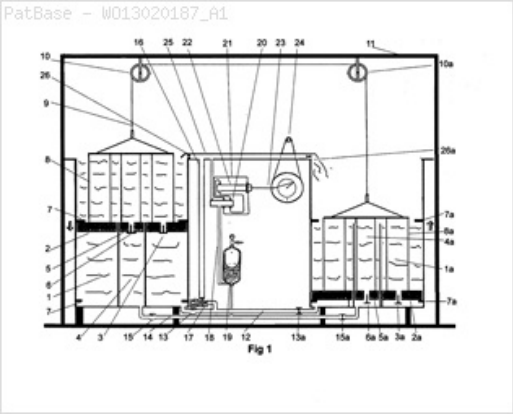
Patent	Date recorded	Event group	Code	Event	Details
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DE3716093 A1	19880128	LSPB	+OAV	APPLICANT AGREED TO THE PUBLICATION OF THE UNEXAMINED APPLICATION AS TO PARAGRAPH 31 LIT. 2 Z1	
DE3716093 A1	19880128	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE3716093 A1	19881006	LSRV	-8131	REJECTION	

20) Family number: 53029225 (WO13020187A1)

Title: METHOD AND DEVICE FOR GENERATING ENERGY BY MEANS OF ALTERNATING HYDRAULIC PISTONS

Abstract: The invention relates to a method for generating constant and ecological energy, enabling the actuation of compatible rotary machines using a very low supply of external or self-produced energy, and to a device for implementing said method.

Classifications:
International (IPC 8-9): F03B17/00 F03B17/02 F03B17/04 (Advanced/Invention)
International (IPC 1-7): F03B17/02 F03B17/04
CPC: F03B17/04 F03B17/005 F03B17/025



Family:

Publication number	Publication date	Application number	Application date
BE1020186 AF	20130604	BE20110000488	20110811
WO13020187 A1	20130214	WO2012BE00041	20120810
WO13020187 A4	20130411	WO2012BE00041	20120810

Priority:
BE20110000488 20110811

Probable Assignee: GASSEE PASCAL

Assignee(s): (std): DEBAILLEUL GERARD ; GASSEE PASCAL

Inventor(s): (std): DEBAILLEUL GERARD

Agent(s): CAUCHIE DANIEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
WO13020187 A1	20130214	LSPB	+	published / reissued	
WO13020187 A4	20140211	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13020187 A4	20141112	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12766849 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

21) Family number: 62615226 (ZA201806536A)

Title: TURBINE **GENERATOR** DEVICE FOR PRODUCING **ELECTRICAL** ENERGY AND ASSOCIATED METHODS OF OPERATION AND INSTALLATION

Abstract: The invention relates to a turbine **generator** device and associated methods of operation and installation, the **generator** comprising: a cylindrical tube (1) through which a volume of fluid circulates; a hydraulic turbine (2) axially and mechanically coupled to a **generator** element by means of a shaft (3), the **generator** element comprising a tubular casing (4) that is leaktight with respect to the fluid in circulation. According to the invention, the casing (4) contains a rotor (5) coupled to the shaft (3), and a stator (6) that surrounds the rotor (5), the casing (4) having two bases: one comprising a hole for the passage of the shaft (3) towards the turbine (2); and another comprising an elastic diaphragm (7) designed to absorb the pressures outside of the casing (4). In turn, a space is defined between the stator (6) and the internal surface of the casing (4), an **antifreeze** liquid (14) being contained in said space.

Classifications:
International (IPC 8-9): F03B F03B13/00 F03B13/08 F03B13/10 F03B17/06 F03B3/12 (Advanced/Invention);
F03B (Subclass/Invention)
International (IPC 1-7): F03B13/08 F03B13/10 F03B17/06
CPC: F03B13/00 F05B2220/20 F05B2220/602 F05B2220/7066 F03B17/061 Y02E10/22 Y02E10/28 F03B13/08 F03B13/10 F03B17/06

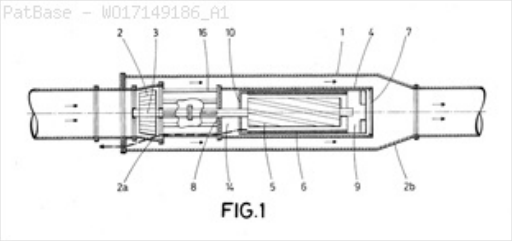


FIG.1

Family:

Publication number	Publication date	Application number	Application date
BR112018067635 A2	20181226	BR20181167635	20170301
CL2018002509 A1	20181214	CL20180002509	20180903
CN109196222 A	20190111	CN201780015020	20170301
CO20180009012 A2	20181031	CO20180009012	20180828
CR20180428 A	20181129	CR20180000428	20170301
CU20180095 A7	20190304	CU20180000095	20170301
DOP2018000189 A	20181231	DO20180000189	20180831
EP3425194 A1	20190109	EP20170759318	20170301
EP3425194 A4	20191120	EP20170759318	20170301
ES2573602 AA	20160608	ES20160030252	20160303
ES2573602 BA	20161221	ES20160030252	20160303
ID201812704 A	20181207	ID2018P0007115	20170301
IL261532 A0	20181231	IL20170261532	20170301
IN201817033037 A	20181207	IN201817033037	20180903
JP2019507292 T2	20190314	JP20180565462T	20170301
KR20180124059 A	20181120	KR20187028489	20170301
MX2018010496 A1	20190110	MX20180010496	20170301
PE18142018 A1	20181122	PE20180001590	20170301
PE20181814 A1	20181122	PE20180001590	20170301
WO17149186 A1	20170908	WO2017ES70116	20170301
ZA201806536 A	20190731	ZA20180006536	20181002

Priority:

ES20160030252 20160303 WO2017ES70116 20170301

Probable Assignee: PERGA INGENIEROS S L

Assignee(s): (std): JOSE MIGUEL PEREZ GARCIA ; MARIO PEREZ GARCIA ; PERGA INGENIEROS S L

Assignee(s): PERGA INGENIEROS SL

Inventor(s): (std): MARIO PEREZ GARCIA ; JOSE MIGUEL PEREZ GARCIA ; JOSE MIGEUL PEREZ GARCIA ; PEREZ GARCIA JOSE MIGUEL ; PEREZ GARCIA MARIO

Agent(s): COVARRUBIAS AND CIA; HERRERO AND ASOCIADOS SL; CARPINTERO MARIO; ACHMAD FATCHY; CARPINTERO LOPEZ MARIO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CL2018002509 A1	20181214	LSPB	+	published / reissued	
CN109196222 A	20190111	LSPB	+	published / reissued	
CN109196222 A	20190111	LSPB	PB01	PUBLICATION	
CO20180009012 A2	20181031	LSPB	+	published / reissued	
CR20180428 A	20181129	LSPB	+	published / reissued	
CU20180095 A7	20190304	LSPB	+	published / reissued	
DOP2018000189 A	20181231	LSPB	+	published / reissued	
EP3425194 A1	20190109	LSPB	+	published / reissued	

EP3425194 A1	20190109	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180830
EP3425194 A4	20191120	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20191023
ES2573602 AA	20160608	LSPB	+	published / reissued	
ES2573602 AA	20161221	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 2573602 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : B1 DESIGNATED STATE(S) : EFFECTIVE DATE : 20161221
ES2573602 BA	20161221	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2573602 BA	20360303	PEXP		Calculated Patent Term Expiry	
ID201812704 A	20181207	LSPB	+	published / reissued	
IN201817033037 A	20181207	LSPB	+	published / reissued	
JP2019507292 T2	20190314	LSPB	+	published / reissued	
JP2019507292 T2	20191219	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20191219
KR20180124059 A	20181120	LSPB	+	published / reissued	
MX2018010496 A1	20190110	LSPB	+	published / reissued	
PE18142018 A1	20181122	LSPB	+	published / reissued	
PE20181814 A1	20181122	LSPB	+	published / reissued	
WO17149186 A1	20170908	LSPB	+	published / reissued	
WO17149186 A1	20180829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 001590-2018 COUNTRY OF REF DOCUMENT : PE
WO17149186 A1	20180830	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2018/010496 COUNTRY OF REF DOCUMENT : MX
WO17149186 A1	20180831	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2018565462 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO17149186 A1	20180905	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : CR2018-000428 COUNTRY OF REF DOCUMENT : CR
WO17149186 A1	20181002	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20187028489 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO17149186 A1	20181004	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017759318 COUNTRY OF REF DOCUMENT : EP
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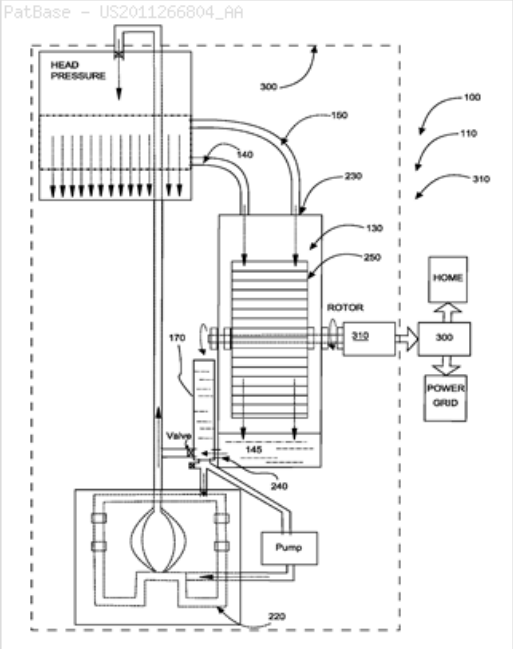
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WO17149186 A1	20181226	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112018067635 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20180903
ZA201806536 A	20190731	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201806536 A	20381001	PEXP		Calculated Patent Term Expiry	

22) Family number: 49884240 (US2011266804A)

Title: ANCIENT HYDROELECTRIC COMPANY

Abstract: Ancient Hydroelectric Company comprises a portable hydroelectricity producing system. Consumers are provided with a cost-effective and reliable system for providing substantially clean electricity generation without obstructing the water source or negatively affecting the environment. The high efficiency portable hydro-electric producing system is for use with a moving water source. The system uses **antifreeze** with water to provide a more thermally efficient working fluid as used to improve the system's pressure and volume capacity in use.

Classifications:
International (IPC 8-9): F03B13/08 F03B17/02 (Advanced/Invention); F03B17/04 (Advanced/Non-invention)
CPC: Y02E60/17 F03B17/005 F03B13/06 F03B17/04 F05B2210/10 Y02E10/22
European: F03B13/06 F03B17/00B F03B17/04 R05B210/10 Y02E10/20 Y02E10/22
US: 290/54 290/54P 415/916 415/916S 60/398



Family:

Publication number	Publication date	Application number	Application date
US2011266804 AA	20111103	US20110086353	20110413
US8127542 BA	20120306	US20110189688	20110725

Priority:

US20100330509P 20100503 US20100887962 20100922 US20110086353 20110413 US20110189688 20110725

Probable Assignee: DOLCIMASCOLO JOSEPH
Assignee(s): (std)**:** DOLCIMASCOLO JOSEPH
Inventor(s): (std)**:** DOLCIMASCOLO JOSEPH
Agent(s): RG PATENT CONSULTING LLC

Legal status (INPADOC)

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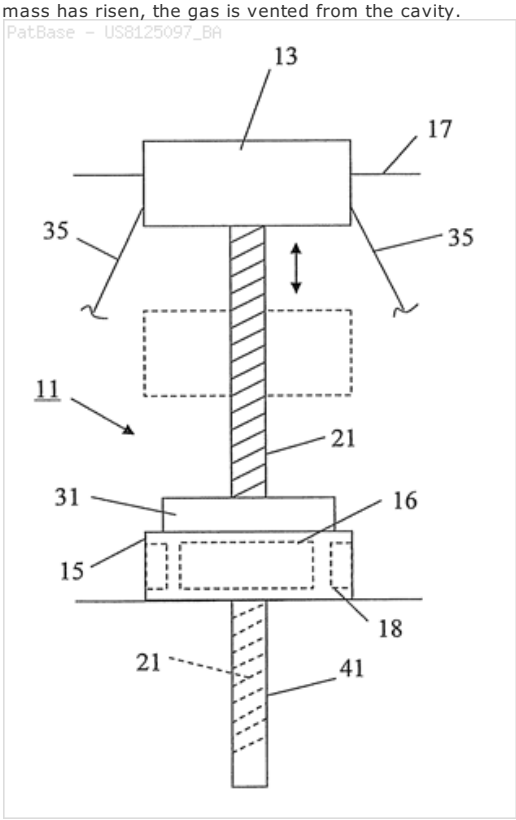
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US2011266804 AA	20111214	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US8127542 BA	20120306	LSGT	+	granted / extensions (spc, cpc, pte)	
US8127542 BA	20120215	LSGT	PAT1	Patented Case	
US8127542 BA	20160306	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8127542 BA	20160404	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8127542 BA	20160404	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8127542 BA	20160426	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160306
US8127542 BA	20310725	PEXP		Calculated Patent Term Expiry	

23) Family number: 50675255 (US8125097B)

Title: **ELECTRICAL** GENERATION USING VERTICAL MOVEMENT OF A MASS

Abstract: A power **generator** has a mass that is capable of moving vertically up and down. A **generator** has a rotor and a stator. A shaft couples the mass to the rotor, with the shaft allowing the mass to move vertically up and down. The shaft has spirals that produce relative rotation between the shaft and the rotor. The mass can float on a body of water that is subject to fluctuating water levels, such as a tidal body or a lock, or the mass can be used on dry land. The mass has an interior cavity. When the cavity contains gas, the mass rises in the water. When the cavity contains water, the mass sinks in the water. When the mass has sunk, gas is introduced into the cavity. When the mass has risen, the gas is vented from the cavity.

Classifications:
International (IPC 8-9): F03B13/10 (Advanced/Invention)
CPC: Y02E10/38 F03B13/1845
European: F03B13/18D
US: 290/53 60/497



Family:

Publication number	Publication date	Application number	Application date
US8125097 BA	20120228	US20090538611	20090810

Priority:
US20090538611 20090810

Probable Assignee: LOMERSON JR ROBERT B
Assignee(s): (std): LOMERSON JR ROBERT B ; LOMERSON SR ROBERT B
Inventor(s): (std): LOMERSON SR ROBERT B ; LOMERSON JR ROBERT B
Agent(s): GEOFFREY A

Legal status (INPADOC)

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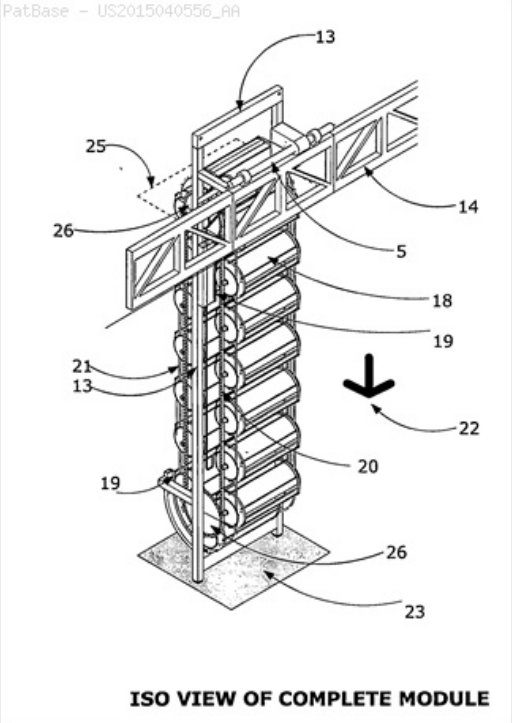
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US8125097 BA	20120228	LSGT	+	granted / extensions (spc, cpc, pte)	
US8125097 BA	20120208	LSGT	PAT1	Patented Case	
US8125097 BA	20120208	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8125097 BA	20151022	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8125097 BA	20191021	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8125097 BA	20300306	PEXP		Calculated Patent Term Expiry (PTA 208 days)	

24) Family number: 58464265 (US2015040556A)

Title: ZERO EMISSIONS POWER PLANT

Abstract: An engine with low rpm and high torque from a combination of gravity forces and the inherent buoyancy as energy of a hollow body is formed immersed in a fluid. The engine includes pair of track system as parallel conveyers with belts or chains and gears that's fixed to a frame that's repeatedly displaces water, two methods used achieving the same objective firstly, sealed cylinders with gears on conveyer, said conveyer frame has external and internal single edge tracking gear cut segment that generate the gravity and buoyancy continuously, the second method triangular prism bellow chambers attached to said conveyer operated by a rail system to collapse and expend thereby combination of buoyancy and gravitational forces causes movement of sprocket chain thus rotate the sprocket gears which is used as a power plant, multiple engines can be deployed in a large tall tank, lake, and ocean as clean energy farm.

Classifications:
International (IPC 8-9)**:** F03B17/04 (Advanced/Invention)
CPC: F03B17/04
US: 60/496



Family:

Publication number	Publication date	Application number	Application date
US2015040556 AA	20150212	US20130964170	20130812

Priority:
US20130964170 20130812

Probable Assignee: DAYA ARVIND A
Assignee(s): (std)**:** DAYA ARVIND A
Inventor(s): (std)**:** DAYA ARVIND A

Legal status (INPADOC)

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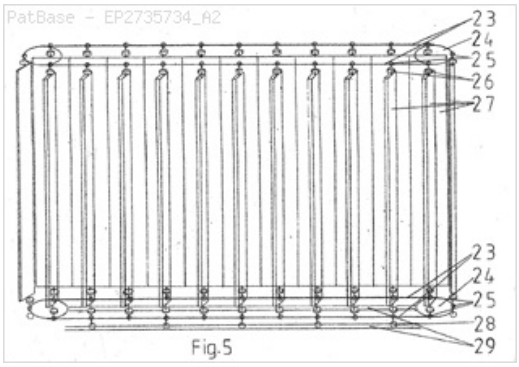
Patent	Date recorded	Event group	Code	Event	Details
US2015040556 AA	20150212	LSPB	+	published / reissued	
US2015040556 AA	20150603	LSES	NFA1	Non Final Action Mailed	
US2015040556 AA	20160225	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

25) Family number: 56528265 (EP2735734A2)

Title: WIND TURBINE WITH VERTICAL BLADES EOLIENNE A PALES VERTICALES

Abstract: The wind turbine has base portion that is anchored in ground base. Vertical wings (27) are rotatably mounted about vertical axis for tracking wind. Return pulleys (24) are mounted at top of base portion along with flexible tension element (23). A mirror image constructed deck structure is arranged in parallel to base portion, and tension elements are connected to vertical wings about vertical axis. An angular position of each vertical wing is controlled with respect to angular position of tension elements between adjustable return pulleys.

Classifications:
International (IPC 8-9): F03D11/04 F03D3/06 F03D5/02 (Advanced/Invention); F03B17/06 F03D3/06 (Advanced/Non-invention)
CPC: F03D3/067 F03D5/02 Y02E10/28 Y02E10/70 Y02E10/74 F03B17/068 F03D3/068 F03D13/20



Family:

Publication number	Publication date	Application number	Application date
AT513655 A1	20140615	AT20120001244	20121127
AT513655 B1	20140815	AT20120001244	20121127
EP2735734 A2	20140528	EP20130194604	20131127

Priority:
AT20120001244 20121127

Probable Assignee: BRAEUER FRANZ
Assignee(s): (std): BRAEUER FRANZ
Inventor(s): (std): BRAEUER FRANZ
Agent(s): ITZE PETER
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

View legal status timeline

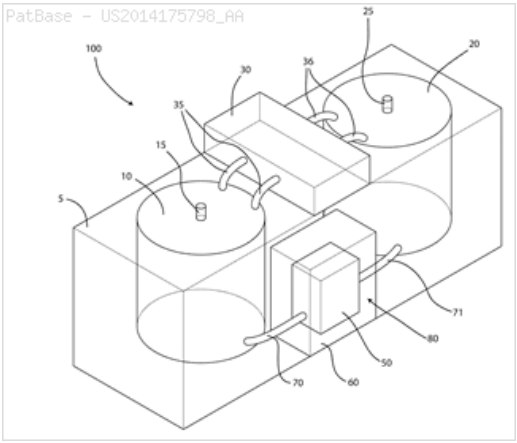
Patent	Date recorded	Event group	Code	Event	Details
AT513655 A1	20140615	LSPB	+	published / reissued	
AT513655 B1	20140815	LSGT	+	granted / extensions (spc, cpc, pte)	
AT513655 B1	20181115	LSLE	-MM01	LAPSE BECAUSE OF NOT PAYING ANNUAL FEES	EFFECTIVE DATE : 20171127
AT513655 B1	20321127	PEXP		Calculated Patent Term Expiry	
EP2735734 A2	20140528	LSPB	+	published / reissued	
EP2735734 A2	20140528	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20131127
EP2735734 A2	20170215	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160601

26) Family number: 56778285 (US2014175798A)

Title: POWER GENERATION SYSTEM AND METHOD OF USE THEREOF

Abstract: A power generation system comprising a first vessel, a second vessel, a pump operably connected to the first vessel and the second vessel, and a turbine manifold assembly operably connected to the first vessel and the second vessel, wherein the pump creates a positive pressure in the first vessel to force a fluid in a first direction through the turbine manifold assembly and into the second vessel to a pre-determined level by a negative pressure in the second vessel, wherein, once the fluid reaches the pre-determined level in the second vessel, the pump creates a positive pressure in the second vessel to force the fluid in an opposing second direction through the turbine manifold assembly and back into the first vessel by a negative pressure in the first vessel to complete a cycle is provided. Furthermore, associated methods and a turbine manifold assembly is also provided.

Classifications:
International (IPC 8-9): F01D15/10 F01D17/10 F03B17/00 F03G7/00 F03G7/10 F04D27/02 H02K7/00 (Advanced/Invention); F03B17/00 (Advanced/Non-invention)
CPC: F04D27/02 F01D17/10 F01D15/10 F05D2220/76 F03B17/005 Y10S415/916 F03G7/00 F03G7/10
US: 1/1 290/52 290/54 415/182.1



Family:

Publication number	Publication date	Application number	Application date
EP2948676 A1	20151202	EP20130865709	20131112
EP2948676 A4	20161116	EP20130865709	20131112
US2014175798 AA	20140626	US20120721782	20121220
US2016319692 AA	20161103	US20160155198	20160516
US9341165 BB	20160517	US20120721782	20121220
US9752452 BB	20170905	US20160155198	20160516
WO14099184 A1	20140626	WO2013US69661	20131112

Priority:
US20120721782 20121220 WO2013US69661 20131112 US20160155198 20160516

Probable Assignee: HOOSE JR HOWARD G
Assignee(s): (std): HOOSE HOWARD G JR ; HOOSE JR HOWARD G
Assignee(s): HOOSE HOWARD G
Inventor(s): (std): HOOSE HOWARD G JR ; HOOSE JR HOWARD G
Inventor(s): HOOSE HOWARD G
Agent(s): CABINET LAURENT AND CHARRAS; JOHN; TECH VALLEY PATENT LLC; PIETRANGELO JOHN
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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EP2948676 A1	20151202	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150710
EP2948676 A4	20161116	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20161018
EP2948676 A4	20191106	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20190601
US2014175798 AA	20140626	LSPB	+	published / reissued	
US2014175798 AA	20160427	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016319692 AA	20161103	LSPB	+	published / reissued	
US2016319692 AA	20170223	LSES	NFA1	Non Final Action Mailed	
US2016319692 AA	20170719	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of	

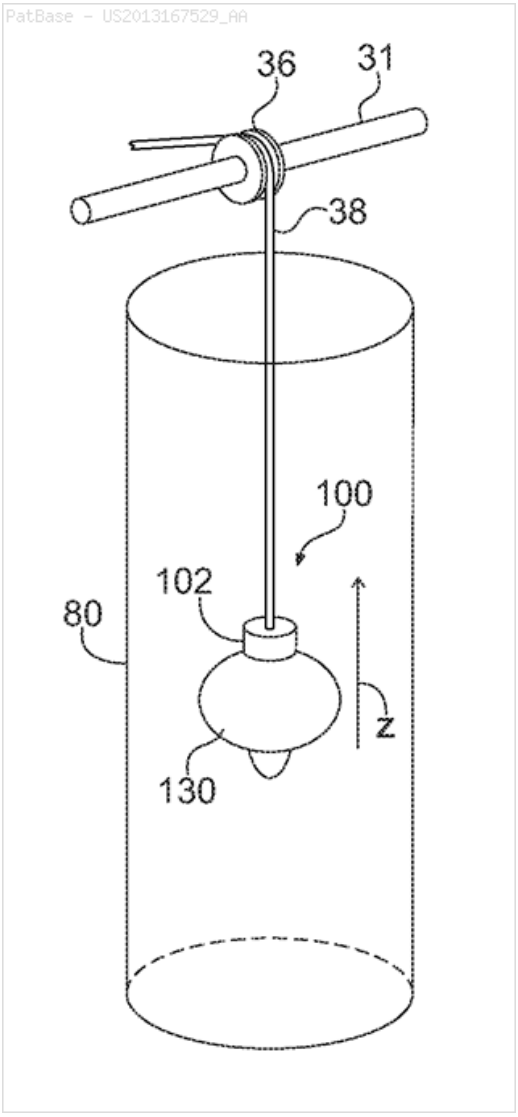
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US2016319692 AA	20170731	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016319692 AA	20170802	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016319692 AA	20170816	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9341165 BB	20160517	LSGT	+	granted / extensions (spc, cpc, pte)	
US9341165 BB	20150908	LSES	NFA1	Non Final Action Mailed	
US9341165 BB	20160427	LSGT	PAT1	Patented Case	
US9341165 BB	20190716	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9341165 BB	20341111	PEXP		Calculated Patent Term Expiry (PTA 691 days)	
US9752452 BB	20170905	LSGT	+	granted / extensions (spc, cpc, pte)	
US9752452 BB	20170816	LSGT	PAT1	Patented Case	
US9752452 BB	20360516	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO14099184 A1	20140626	LSPB	+	published / reissued	
WO14099184 A1	20150622	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14099184 A1	20150710	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013865709 COUNTRY OF REF DOCUMENT : EP

27) Family number: 52869293 (US2013167529A)

Title: METHOD FOR ROTATION OF A SHAFT USING THE FORCE OF GRAVITY

Abstract: A method for generating rotational movement including supporting an output shaft for rotational movement wherein the output shaft includes at least two one-way clutch mechanisms attached thereat; positioning an infton assembly, having a weighted member and an inflatable blader, in association with each one-way clutch mechanism such that each infton assembly is surrounded by a buoyancy fluid; and controlling inlet and outlet valves of the infton assembly such that each inlet valve is opened to facilitate flow of a filling fluid having a density less than that of the buoyancy fluid into the respective inflatable bladder as the respective weighted member reaches a lower limit of travel and each outlet valve is opened to facilitate exhausting of the filling fluid within the respective inflatable bladder as the respective weighted member reaches an upper limit of travel.

Classifications:
International (IPC 8-9): F03B17/02 F03B17/04 F03G3/00 F03G3/04 F03G7/10 (Advanced/Invention)
CPC: F03B17/025
US: 185/32 60/496 60/639



Family:

Publication number	Publication date	Application number	Application date
US2013167529 AA	20130704	US20110338832	20111228
US8360205 BA	20130129	US20110338805	20111228
US8596059 BB	20131203	US20110338832	20111228
WO13098623 A1	20130704	WO2012IB02762	20121220

Priority:

US20110338805 20111228 US20110338832 20111228

Probable Assignee: DIAGNOSTICO Y PRUEBAS ELECTRICAS S A

Assignee(s): (std): CAMACHO MUNOZ JUAN ERNESTO ; DIAGNOSTICO Y PRUEBAS ELECTRICAS S A ; M ; MUNOZ JUAN ERNESTO CAMACHO

Assignee(s): DIAGNOSTICO Y PRUEBAS ELECTRICAS SA

Inventor(s): (std): CAMACHO MUNOZ JUAN ERNESTO ; M ; MUNOZ JUAN ERNESTO CAMACHO

Agent(s): FOX ROTHSCHILD LLP; GLENN M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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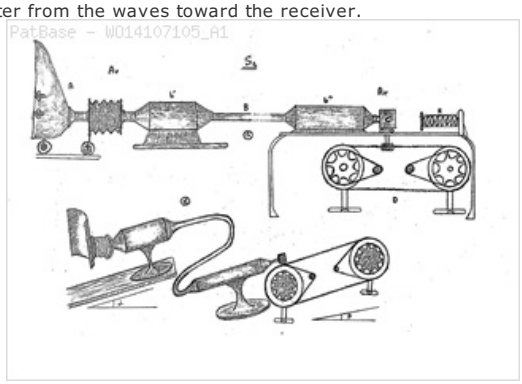
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US8360205 BA	20160729	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8360205 BA	20311228	PEXP		Calculated Patent Term Expiry	
US8596059 BB	20131203	LSGT	+	granted / extensions (spc, cpc, pte)	
US8596059 BB	20131113	LSGT	PAT1	Patented Case	
US8596059 BB	20170530	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8596059 BB	20311228	PEXP		Calculated Patent Term Expiry	
WO13098623 A1	20130704	LSPB	+	published / reissued	
WO13098623 A1	20140630	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13098623 A1	20150121	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12862731 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO13098623 A1	20160302	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12862731 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

28) Family number: 56886301 (WO14107105A1)

Title: APPARATUS PRODUCING **ELECTRICAL** ENERGY FROM WAVE MOVEMENTS

Abstract: The invention relates to an apparatus which: converts the kinetic energy from waves into mechanical energy and subsequently into **electrical** energy by means of an alternator; operates at two separate locations; and comprises four parts, in addition to obstacles (A, B, C, D+E). Part A: the receiver that serves to receive the waves. Part B: the channel containing the fluid that transports the force in the form of pressure. Part C: the arm that discharges the force transmitted along the channel in favour of the acceleration system. Part D: the acceleration system, which accelerates the shafts of the alternators. The obstacles (E): in the form of walls that orient the water from the waves toward the receiver.

Classifications:
International (IPC 8-9): F03B13/12 F03B13/14 F03B13/18 (Advanced/Invention)
CPC: F03B13/185 F03B13/187 Y02E10/38



Family:

Publication number	Publication date	Application number	Application date
IN04747CN2015 A	20160701	IN2015CN04747	20150804
MA35296 B1	20140801	MA20130035531	20130104
WO14107105 A1	20140710	WO2013MA00014	20130606

Priority:

MA20130035531 20130104 WO2013MA00014 20130606

Probable Assignee: ES SAADY MOHAMED

Assignee(s): (std): ES SAADY MOHAMED

Inventor(s): (std): ES SAADY MOHAMED

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

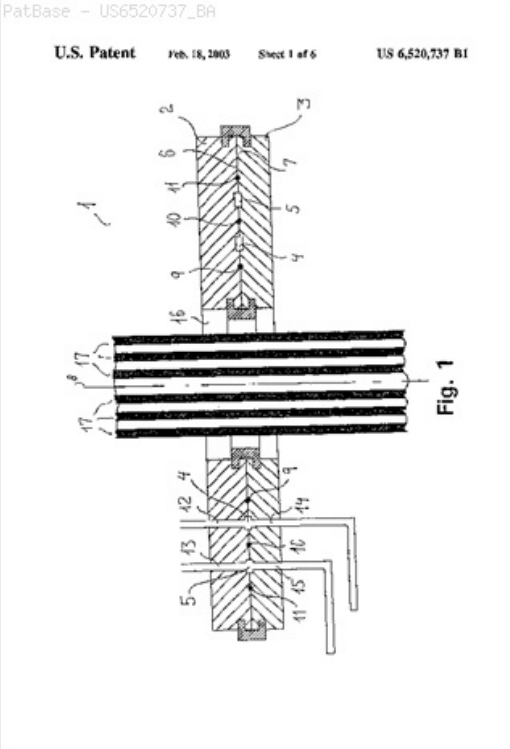
Patent	Date recorded	Event group	Code	Event	Details
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MA35296 B1	20140801	LSGT	+	granted / extensions (spc, cpc, pte)	
MA35296 B1	20330104	PEXP		Calculated Patent Term Expiry	
WO14107105 A1	20140710	LSPB	+	published / reissued	
WO14107105 A1	20150706	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14107105 A1	20160127	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 13762591 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

29) Family number: 28430307 (US6520737B)

Title: OFFSHORE WIND TURBINE WITH LIQUID-COOLING

Abstract: An offshore wind turbine is disclosed wherein the power transmission in the nacelle is cooled by means of a liquid conducted to the nacelle from the tower on which the nacelle is pivotally arranged around a vertical yawing axis. The liquid transfers heat to the seawater near the turbine which is used as a heat sink of low temperature and enormous heat capacity as compared to traditional air cooling. The liquid is conducted in a closed circuit and the cooling system may comprise more than one cooling circuit. The flow of cooling-liquid may be conducted between the tower and the nacelle through a heat transfer unit having a first part that is stationary with respect to the tower and a second part that is stationary with respect to the nacelle. The parts have at least one annular passageway for a liquid flow defined between abutting surfaces of the parts.

Classifications:
International (IPC 8-9): F03D11/00 F03D11/02 F03D15/00 F03D80/60 F16L39/04 (Advanced/Invention); F03D11/00 F16L39/00 (Core/Invention)
International (IPC 1-7): F03B15/06 F03D11/02 F16L39/04
CPC: Y10S415/908 F05B2240/95 Y02E10/726 F03D15/00 F16L39/04 F03D13/25 F03D80/60
European: F03D11/00 F03D11/02 F16L39/04 R05B240/95 R05B260/20 Y02E10/72D Y02E10/72J
US: 415/175 415/177 415/4.3 415/4.5 415/908



Family:

Publication number	Publication date	Application number	Application date
AT280902 E	20041115	AT20000922479T	20000508
AU200042867 A1	20001121	AU20000042867	20000508
AU200042867 A5	20001121	AU20000042867	20000508
CA2373156 AA	20011206	CA20002373156	20000508
CA2373156 C	20080923	CA20002373156	20000508
DE60015327 D1	20041202	DE20006015327	20000508
DK1185790 T3	20050307	DK20000922479T	20000508
EP1185790 A1	20020313	EP20000922479	20000508
EP1185790 B1	20041027	EP20000922479	20000508
ES2231183 T3	20050516	ES20000922479T	20000508
US6520737 BA	20030218	US20020959778	20020426
WO0068570 A1	20001116	WO2000DK00230	20000508

Priority:
DK19990000630 19990507 EP20000922479 20000508 WO2000DK00230 20000508

Probable Assignee: MHI VESTAS OFFSHORE WIND A S

Assignee(s): (std): NEG MICON AS ; VILSBOELL NIELS ; NEG MICON RANDERS AS ; NEG MICON AS RANDERS ; FISCHER TORSTEN

Assignee(s): MHI VESTAS OFFSHORE WIND A S ; MHI VESTAS OFFSHORE WIND A SDUSAGER 4DK-8200AARHUS N.DK ; NEG MICON A S ; NEG MICON A S ALSVEJ ; NEG MICON A S RANDERS ; VESTAS WIND SYSTEMS A S ; VILSBOLL NIELS ; VESTAS WIND SYSTEMS A SHEDEAGER 44DK-8200AARHUS NDK ; NEG MICON A SALSVEJ 21DK-8900RANDERSDK

Inventor(s): (std): FISCHER TORSTEN ; VILSBOELL NIELS ; WESTH NIELS VILSBOELL ; VILSB LL NIELS ; VILSBOLL NIELS

Inventor(s): NIELS VILSBOLL ; TORSTEN FISCHER ; FISCHER TORSTENDK ; VILSBOLL NIELSDK

Agent(s): GOWLING LAFLEUR HENDERSON LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
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				extensions (spc, cpc, pte)	
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AT280902 E	20200508	PEXP		Calculated Patent Term Expiry	
AU200042867 A1	20001121	LSPB	+	published / reissued	
AU200042867 A5	20020321	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
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CA2373156 AA	20050407	LSES	+EEER	EXAMINATION REQUEST	
CA2373156 C	20080923	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2373156 C	20190619	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20190508
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EP1185790 A1	20020313	LSPB	+	published / reissued	
EP1185790 A1	20020313	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20011207
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EP1185790 B1	20190102	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
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US6520737 BA	20030218	LSGT	+	granted / extensions (spc, cpc, pte)	
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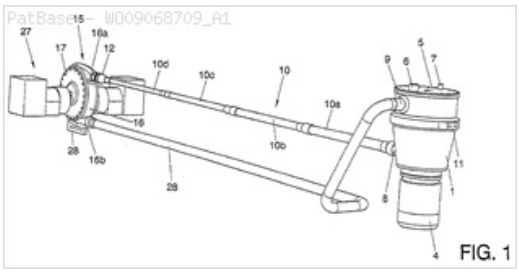
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US6520737 BA	20030130	LSGT	PAT1	Patented Case	
US6520737 BA	20030130	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6520737 BA	20060722	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6520737 BA	20100726	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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US6520737 BA	20140910	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MHI VESTAS OFFSHORE WIND A/S, DENMARK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VESTAS WIND SYSTEMS A/S; REEL/FRAME:033711/0775 EFFECTIVE DATE : 20140702
US6520737 BA	20220426	PEXP		Calculated Patent Term Expiry	
WO0068570 A1	20001116	LSPB	+	published / reissued	
WO0068570 A1	20011206	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2373156 COUNTRY OF REF DOCUMENT : CA
WO0068570 A1	20011206	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2373156 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO0068570 A1	20040212	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP
WO0068570 A1	20041027	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2000922479 COUNTRY OF REF DOCUMENT : EP

30) Family number: 43354320 (WO09068709A1)

Title: ELECTRIC POWER GENERATING DEVICE

Abstract: The invention relates to an electric power generating device including a pressure chamber (1) provided with an impeller (2) which meshes with a motor (4) by means of a shaft (3) in order to drive a fluid through the outlet (8) thereof, said outlet being connected via a tapered pipe (10) to a pressure injector (12) which is applied at the inlet (16a) of a turbine (15) which meshes with two alternators (27). The pressure injector (12) is provided with an expansion chamber (13) which opens into a segment (14) having an outlet cross-section smaller than the inlet cross-section of the pressure injector (12), in order to drive the fluid over the turbine with a strong force, the above-mentioned alternators (27) generating an electric power greater than that consumed by the motor (4). The outlet (16b) of the turbine (15) is connected to the pressure chamber via a return pipe (28).

Classifications:
International (IPC 8-9): F03B17/00 (Advanced/Invention); F03B17/00 (Core/Invention)
CPC: F03B17/005 F03B1/02 Y02E10/223
European: F03B1/02 F03B17/00B Y02E10/20 Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
ES2323115 AA	20090706	ES20070003120	20071126
ES2323115 BA	20100423	ES20070003120	20071126
WO09068709 A1	20090604	WO2008ES00735	20081125

Priority:
ES20070003120 20071126

Probable Assignee: SANCHEZ MORELL PEDRO JUAN
Assignee(s): (std): SANCHEZ MORELL PEDRO JUAN
Assignee(s): PEDRO JUAN SANCHEZ MORELL
Inventor(s): (std): SANCHEZ MORELL PEDRO JUAN
Inventor(s): PEDRO JUAN SANCHEZ MORELL
Agent(s): UNGRIA LOPEZ JAVIER
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

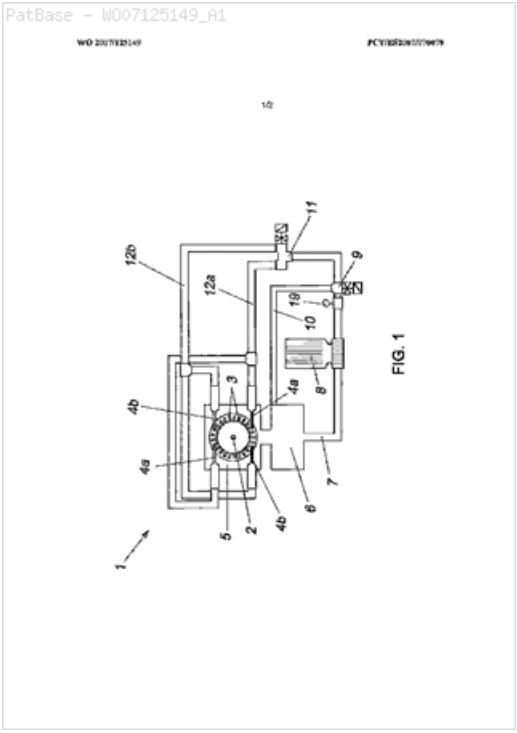
Patent	Date recorded	Event group	Code	Event	Details
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ES2323115 AA	20090706	LSES	+EC2A	SEARCH REPORT PUBLISHED	DATE OF REF DOCUMENT : 20090706 KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
ES2323115 BA	20100423	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2323115 BA	20100423	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 2323115B1 COUNTRY OF REF DOCUMENT : ES
ES2323115 BA	20180912	LSLE	-FD2A	ANNOUNCEMENT OF LAPSE IN SPAIN	EFFECTIVE DATE : 20180912
ES2323115 BA	20271126	PEXP		Calculated Patent Term Expiry	
WO09068709 A1	20090604	LSPB	+	published / reissued	
WO09068709 A1	20100527	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO09068709 A1	20110302	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08853478 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

31) Family number: 40802343 (WO07125149A1)

Title: WATER-PROPELLED MOTOR

Abstract: Water-propelled motor that comprises a shaft that delivers the mechanical power and to which an electric **generator** is coupled, radial blades emanating from the shaft and running inside an openable closed casing such that they can be impelled by high-pressure water jets emerging from nozzles suitably arranged inside the casing. The casing contains in its lower part a water-collection housing provided with a lower suction conduit, which by means of an electropump will convey the water back to the nozzles. An electronic control has been provided for the motor, which controls the electropump's motor and also electrovalves that regulate the flow of water emerging from the nozzles and projected at the blades.

Classifications:
International (IPC 8-9): F03B17/00 (Advanced/Invention); F03B17/00 (Core/Invention)
CPC: F03B17/005
European: F03B17/00B Y02E10/20



Family:

Publication number	Publication date	Application number	Application date
ES2302428 AA	20080701	ES20060001103	20060428
ES2302428 BA	20090508	ES20060001103	20060428
WO07125149 A1	20071108	WO2007ES70078	20070419

Priority:
ES20060001103 20060428

Probable Assignee: MATEO GARCIA JOSE IGNACIO
Assignee(s): (std): MATEO GARCIA HECTOR ; MATEO GARCIA JOSE IGNACIO
Assignee(s): HECTOR MATEO GARCIA
Inventor(s): (std): MATEO GARCIA HECTOR ; MATEO GARCIA JOSE IGNACIO
Inventor(s): JOSE IGNACIO MATEO GARCIA ; HECTOR MATEO GARCIA
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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ES2302428 AA	20080701	LSES	+EC2A	SEARCH REPORT PUBLISHED	DATE OF REF DOCUMENT : 20080701 KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
ES2302428 BA	20090508	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2302428 BA	20091126	LSWD	-FA2A	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20091116
ES2302428 BA	20260428	PEXP		Calculated Patent Term Expiry	

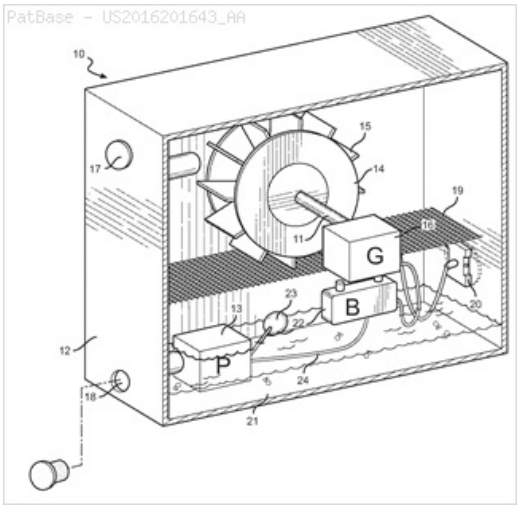
WO07125149 A1	20071108	LSPB	+	published / reissued	
WO07125149 A1	20081029	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07125149 A1	20090610	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 07730516 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

32) Family number: 62910348 (US2016201643A)

Title: PORTABLE HYDROELECTRIC **GENERATOR**

Abstract: A portable hydroelectric **generator**. The portable hydroelectric **generator** includes a flywheel adapted to rotate from a flow of water, turning a driveshaft and powering a **generator**. The flywheel is brought to an initial rotational speed from an external power source or from electricity stored in the battery. The flywheel rotation is maintained with a flow of water from a pump which moves water from the bottom of the housing to the blades of the flywheel. The rotation from the flywheel to the **generator** produces electricity. The generated electricity is stored in a battery, which provides power to an outlet as well as to the pump. Additionally, the **generator** can include a solar panel to provide an alternative source of power for the initial rotation of the flywheel.

Classifications:
International (IPC 8-9): F03B17/06 H02K11/00 H02K7/02 (Advanced/Invention)
CPC: H02K7/02 H02K11/0094 Y10S415/916 H02K53/00 F03B17/005 Y02E10/28
US: 290/50 290/52 415/916



Family:

Publication number	Publication date	Application number	Application date
US2016201643 AA	20160714	US20160991570	20160108

Priority:

US20150100961P 20150108 US20160991570 20160108

Probable Assignee: BLAKE MILTON
Assignee(s): (std): BLAKE MILTON
Inventor(s): (std): BLAKE MILTON

Legal status (INPADOC)

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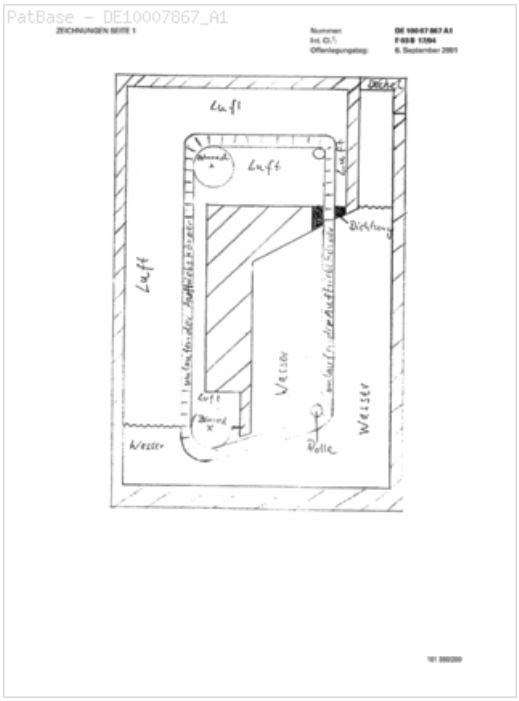
Patent	Date recorded	Event group	Code	Event	Details
US2016201643 AA	20160714	LSPB	+	published / reissued	
US2016201643 AA	20170718	LSES	NFA1	Non Final Action Mailed	
US2016201643 AA	20180206	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

33) Family number: 15462355 (DE10007867A1)

Title: FLOAT MOTOR TO GENERATE **ELECTRICAL** CURRENT AND VOLTAGE AT DESIRED HEIGHT; PRODUCES ENERGY CONTINUOUSLY, USING SUN'S HEAT AND WITHOUT FOSSIL OR ATOMIC SOURCES OF ENERGY SUPPLY

Abstract: The float motor produces **electrical** energy without energy supply from fossil or atomic sources. The energy is produced continuously, and only using the sun's heat. A float body is continuous upwards only on one side, so that half is filled with water and half is filled with air, with the air-filled half sealed. An adjustable valve controls the amount of air in the air-filled half. Oil or **antifreeze** may be used instead of water.

Classifications:
International (IPC 8-9): F03B17/04 (Advanced/Invention); F03B17/00 (Core/Invention)
International (IPC 1-7): F03B17/04
CPC: F03B17/04
European: F03B17/04 Y02E10/20



Family:

Publication number	Publication date	Application number	Application date
DE10007867 A1	20010906	DE20001007867	20000221

Priority:
DE20001007867 20000221

Probable Assignee: LIS JUERGEN
Assignee(s): (std)**:** LIS JUERGEN

Legal status (INPADOC)

View legal status timeline

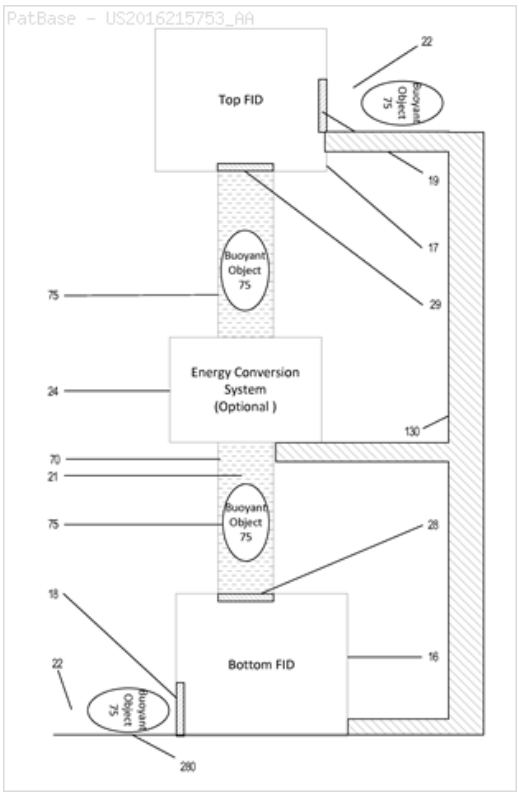
Patent	Date recorded	Event group	Code	Event	Details
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DE10007867 A1	20010906	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE10007867 A1	20011011	LSLI	8122	NONBINDING INTEREST IN GRANTING LICENCES DECLARED	
DE10007867 A1	20031211	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	

34) Family number: 62989418 (US2016215753A)

Title: MASS LEVITATOR WITH ENERGY CONVERSION

Abstract: The various embodiments disclosed herein provide a generalized system for extracting gravitational energy from the planet and provide for a general, pollution free, mass lifting and energy conversion system in which the laws of fluid flow, and in particular buoyancy and gravity are utilized to lift an arbitrary mass to a higher gravitational potential energy, where upon the increased potential energy can be converted to other forms of energy. Novel and non-obvious features of the fluid interface device, used to insert the buoyant object into the buoyant fluid, insure that the insertion energy is less than the potential energy gained by the object. The net increase in potential energy can be converted to other forms of energy such as **electrical** power or mechanical energy. It is shown in that energy gain is effectively extracted from the gravitational field of the planet without breaking the laws of conservation of energy.

Classifications:
International (IPC 8-9): F02B63/04 F03B17/00 F03B17/02 F03B17/04 F03G3/00 F03G7/08 (Advanced/Invention)
CPC: F03G3/00 Y10S415/916 F03B17/04 F03B17/005
US: 1/1 290/1R



Family:

Publication number	Publication date	Application number	Application date
US2016215753 AA	20160728	US20140151923	20140110
US2017321651 AA	20171109	US20170652595	20170718
US9745952 BB	20170829	US20140151923	20140110
US10156222 BB	20181218	US20170652595	20170718

Priority:
US20130751336P 20130111 US20140151923 20140110 US20170652595 20170718

Probable Assignee: WESTMORELAND DOUG
Assignee(s): (std): WESTMORELAND DOUG
Inventor(s): (std): WESTMORELAND DOUG
Agent(s): HAMILTON BROOK SMITH AND REYNOLDS PC

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US10156222 BB	20181218	LSGT	+	granted / extensions (spc, cpc, pte)	
US10156222 BB	20181128	LSGT	PAT1	Patented Case	
US10156222 BB	20370718	PEXP		Calculated Patent Term Expiry	
US2016215753 AA	20160728	LSPB	+	published / reissued	
US2016215753 AA	20170612	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016215753 AA	20170721	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016215753 AA	20170809	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017321651 AA	20171109	LSPB	+	published / reissued	

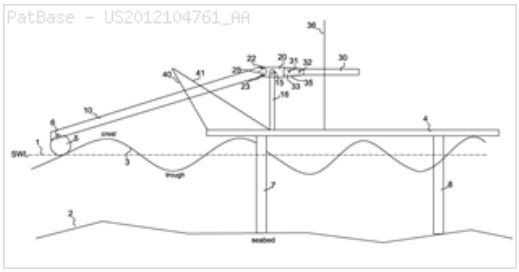
US2017321651 AA	20180322	LSES	NFA1	Non Final Action Mailed	
US2017321651 AA	20180803	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2017321651 AA	20180803	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017321651 AA	20181128	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9745952 BB	20170829	LSGT	+	granted / extensions (spc, cpc, pte)	
US9745952 BB	20170809	LSGT	PAT1	Patented Case	
US9745952 BB	20360212	PEXP		Calculated Patent Term Expiry (PTA 763 days)	

35) Family number: 51044419 (US2012104761A)

Title: OCEAN WAVE ENERGY CONVERTER AND METHOD OF POWER GENERATION

Abstract: A device comprising a float (5) and a pivoting assembly of a rigid beam (10) and an elastic beam (30, firmly connected to each other, pivoting about a stationary point (15). The device transforms the rise and falls of the ocean waves into usable mechanical energy. In one embodiment, the elastic beam is latched into a latch mechanism (150). The latch mechanism obstructs the elastic beam to continue moving. The elastic beam deflects and accumulates potential power. When the elastic beam is released, it moves with a high speed and momentum. In another embodiment this momentum is utilized to counter-rotate an electric **generator**'s two rotors (251, 252). A method of transforming the energy of a mass in reciprocating motion to **electrical** power.

Classifications:
International (IPC 8-9): F03B13/10 F03B13/12 F03B13/18 H01L41/113 H02N2/18 H02P9/04 (Advanced/Invention); F03B13/00 F03B13/16 F03B13/18 (Advanced/Non-invention)
CPC: H02N2/18 F03B13/12 F03B13/10 H02P9/04 F03B13/00 F03B13/16 F03B13/18 Y02E10/38
European: F03B13/16 F03B13/18 H02N2/18
US: 290/53 290/53P 310/339 310/339P



Family:

Publication number	Publication date	Application number	Application date
US2012104761 AA	20120503	US20110284865	20111028
US2012119624 AA	20120517	US20110297254	20111115
US8723350 BB	20140513	US20110284865	20111028
US8841822 BB	20140923	US20110297254	20111115

Priority:

US20100408011P 20101029 US20100414246P 20101116 US20110284865 20111028 US20110297254 20111115

Probable Assignee: DOLBY LABORATORIES LICENSING CORP
Assignee(s): (std): VAMVAS VASSILIOS ; VASSILIOS VAMVAS
Assignee(s): DOLBY LABORATORIES LICENSING CORP
Inventor(s): (std): VAMVAS VASSILIOS

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2012104761 AA	20120503	LSPB	+	published / reissued	
US2012119624 AA	20120517	LSPB	+	published / reissued	
US8723350 BB	20140513	LSGT	+	granted / extensions (spc, cpc, pte)	
US8723350 BB	20140423	LSGT	PAT1	Patented Case	
US8723350 BB	20171225	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8723350 BB	20180611	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US8723350 BB	20180611	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8723350 BB	20180611	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8723350 BB	20180703	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180513
US8723350 BB	20321029	PEXP		Calculated Patent Term Expiry (PTA 367 days)	
US8841822 BB	20140923	LSGT	+	granted / extensions (spc, cpc, pte)	
US8841822 BB	20120131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DOLBY LABORATORIES

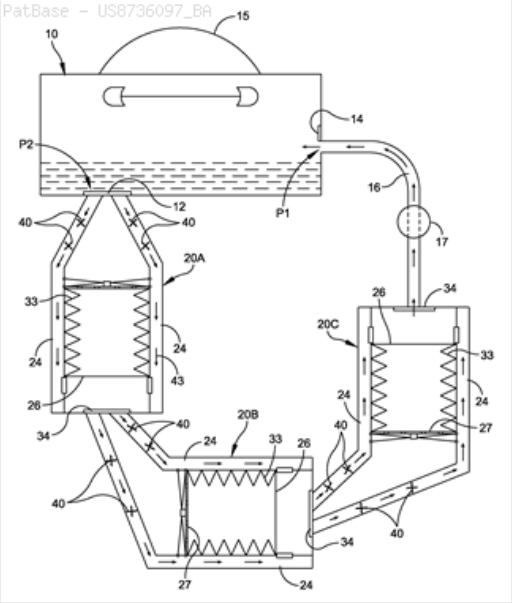
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US8841822 BB	20140903	LSGT	PAT1	Patented Case	
US8841822 BB	20180507	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8841822 BB	20181029	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: MICROENTITY
US8841822 BB	20181029	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
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US8841822 BB	20181120	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180923
US8841822 BB	20320510	PEXP		Calculated Patent Term Expiry (PTA 177 days)	

36) Family number: 56493435 (US8736097B)

Title: HYDROKINETIC **GENERATOR** SYSTEM

Abstract: A hydrokinetic **generator** apparatus that includes a liquid reservoir having an outlet port and an inlet port that is disposed over the outlet port; an outflow valve that is disposed at the outlet port of the liquid reservoir; at least one **generator** module coupled from the liquid reservoir and including at least one fill pipe for receiving liquid expelled from the liquid reservoir, and at least one outlet port; at least one surge **generator** disposed in the fill pipe; and an outflow valve at a base of the **generator** module. The outlet port of the **generator** module is coupled to the inlet port of the liquid reservoir. The apparatus further includes a battery pack; an **electrical** controller responsive to a voltage across the battery pack for controlling said valves; and an **electrical** charging hub responsive to the surge **generator** for re-charging the battery pack.

Classifications:
International (IPC 8-9): F03B13/00 H02P9/04 (Advanced/Invention)
CPC: H02P9/04 F03B17/005
US: 290/43 290/54



Family:

Publication number	Publication date	Application number	Application date
US8736097 BA	20140527	US20140147761	20140106

Priority:

US20130824438P 20130517 US20140147761 20140106

Probable Assignee: SCHRADER CLARENCE W
Assignee(s): (std): SCHRADER CLARENCE W
Inventor(s): (std): SCHRADER CLARENCE W
Agent(s): SALTER AND MICHAELSON

Legal status (INPADOC)

View legal status timeline

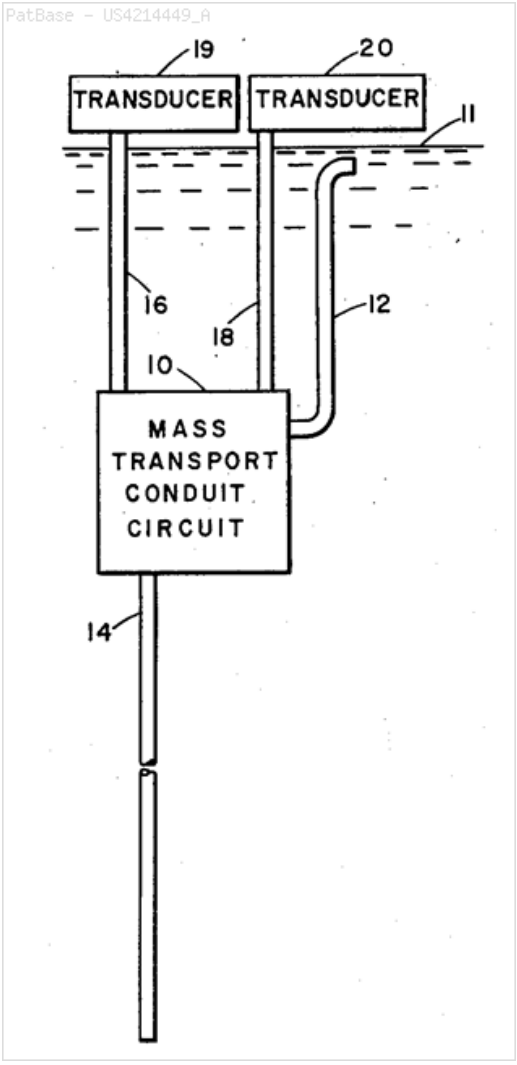
Patent	Date recorded	Event group	Code	Event	Details
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US8736097 BA	20140507	LSGT	PAT1	Patented Case	
US8736097 BA	20140507	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8736097 BA	20170705	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8736097 BA	20340106	PEXP		Calculated Patent Term Expiry	

37) Family number: 30240476 (US4214449A)

Title: Thermal energy conversion system utilizing expandites

Abstract: An ocean thermal energy conversion system includes a mass of expandites that change density in response to changes in temperature at a given pressure to thereby change buoyancy with respect to ocean water; a mass transport conduit circuit for introducing the expandites to ocean water at different combinations of temperature and pressure and transporting the expandites and ocean water in response to pressure differentials created by density changes and concomitant buoyancy changes of the expandites as the expandites are exposed to ocean water at different combinations of pressure and temperature; and a transducer such as a turbo-electric **generator** for converting the pressure of water transported by the circuit to **electrical** energy. Expandites are defined as separate objects that expand or contract when heated or cooled, thereby changing their density. The disclosed expandites includes substances encased in plastic bags, such as ammonia which expands upon undergoing a phase transformation upon going from a liquid to a gas, and nitro benzene which expands upon undergoing a phase transformation from a liquid to a solid.

Classifications:
International (IPC 8-9): F01K25/06 F01K25/10 F03G7/04 F03G7/05 F03G7/06 F24J3/06 F24V50/00 (Advanced/Invention); F01K25/00 F03G7/00 F03G7/06 F24J3/00 (Core/Invention)
International (IPC 1-7): F01K25/00 F01K25/06 F01K25/10 F03B13/12 F03G7/00 F03G7/04 F03G7/05 F03G7/06 F24J3/02 F24J3/06 F28C3/04 F28D19/02 F28D21/00
CPC: F03G7/04 F01K25/06 F03G7/05 Y02E10/34
European: F01K25/06 F03G7/04 F03G7/05 Y02E10/10 Y02E10/34
US: 417/321 417/52 60/398 60/530 60/641 60/641.7 60/649



Family:

Publication number	Publication date	Application number	Application date
AR227282 A1	19821015	AR19800280507	19800331
AT20384 E	19860615	AT19800300956T	19800327
AU198057041 A1	19801009	AU19800057041	19800401
AU534995 B2	19840223	AU19800057041	19800401
BR8001990 A	19801125	BR19800001990	19800331
BR8008980 A	19811020	BR19800008980	19801210
CA1141971 A1	19830301	CA19800349076	19800402
DE3071636 D1	19860717	DE19803071636	19800327
DK139880 A	19801003	DK19800001398	19800401
EP0018719 A1	19801112	EP19800300956	19800327
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EP0041574 A1	19811216	EP19810900257	19801210
EP0041574 A4	19820216	EP19810900257	19801210
ES490169 A0	19810416	ES19800490169	19800401
ES490169 A2	19810513	ES19800490169	19800401
ES8104492 A1	19810416	ES19800490169	19800401
JP1648773 C3	19920313	JP19800041262	19800401
JP2058474 B4	19901207	JP19800041262	19800401
JP55160179 A2	19801212	JP19800041262	19800401
JP56501767 T2	19811203	JP19810500469T	19801210
NO800907 A	19801003	NO19800000907	19800328
NO800907 L	19801003	NO19800000907	19800328

NZ193232 A	19830930	NZ19800193232	19800324
US4214449 A	19800729	US19790025800	19790402
US4333312 A	19820608	US19800123491	19800310
US4373339 A	19830215	US19790103573	19791214
WO8101724 A1	19810625	WO1980US01764	19801210
ZA8001676 A	19810624	ZA19800001676	19800321

Priority:

US19790025800 19790402 US19790103573 19791214 US19800123491 19800310
EP19800300956 19800327 CA19800349076 19800402 WO1980US01764 19801210

Probable Assignee: SORENSEN RESEARCH AND DEVELOPMENT

Assignee(s): (std): JIENSU ORE SORENSEN ; SORENSEN JENS OLE ; SORENSEN J O ; SORENSEN J ; SORENSEN JENS O ; TRADE FINANCE INTERNATIONAL ; TRADE FINANCE INT

Assignee(s): TRADE FINANCE INT A CAYMAN ISLANDS CORP ; SORENSEN JO ; PRIMTEC PO BOX 2403 RANCHO SANTA FE CA 92067 A COR ; SORENSEN RESEARCH AND DEVELOPMENT ; PRIMTEC A CORP OF CA ; JENS OLE SORENSEN ; JENS OLE SORENSEN BOX

Inventor(s): (std): SORENSEN JENS OLE ; SORENSEN J ; SORENSEN J O ; SORENSEN JENS O ; JENSU ORE SORENSEN ; JIENSU ORE SORENSEN

Inventor(s): JENS OLE SORENSEN

Agent(s): SMART AND BIGGAR

Designated states: AT BE BR CH DE FR GB IT JP LU NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR227282 A1	19821015	LSGT	+	granted / extensions (spc, cpc, pte)	
AR227282 A1	20000331	PEXP		Calculated Patent Term Expiry	
AT20384 E	19860615	LSGT	+	granted / extensions (spc, cpc, pte)	
AT20384 E	20000327	PEXP		Calculated Patent Term Expiry	
AU198057041 A1	19801009	LSPB	+	published / reissued	
AU534995 B2	19840223	LSGT	+	granted / extensions (spc, cpc, pte)	
AU534995 B2	20000401	PEXP		Calculated Patent Term Expiry	
BR8001990 A	19801125	LSPB	+	published / reissued	
BR8008980 A	19811020	LSPB	+	published / reissued	
DE3071636 D1	19870702	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3071636 D1	19960307	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DK139880 A	19801003	LSPB	+	published / reissued	
DK139880 A	19850101	LSWD	-AHS	APPLICATION SHELVED FOR OTHER REASONS THAN NON-PAYMENT	
DK139880 A	19920224	LSLE	-PBP	PATENT LAPSED	
EP0018719 A1	19801112	LSPB	+	published / reissued	
EP0018719 A1	19810708	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19810418
EP0018719 B1	19860611	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0018719 B1	19860611	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT LAPSED DATE : 19860611
EP0018719 B1	19860611	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE LAPSED DATE : 19860611
EP0018719 B1	19860611	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH LAPSED DATE : 19860611

EP0018719 B1	19860611	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19860611
EP0018719 B1	19860611	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19860611
EP0018719 B1	19860630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE LAPSED DATE : 19860630
EP0018719 B1	19860930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0018719 B1	19861216	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP0018719 B1	19870331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19870331
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EP0018719 B1	19880122	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0018719 B1	19880401	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : AR
EP0018719 B1	19880805	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : BR
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EP0018719 B1	19940330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19940330 YEAR OF FEE PAYMENT : 15
EP0018719 B1	19940406	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19940406 YEAR OF FEE PAYMENT : 15
EP0018719 B1	19950327	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB LAPSED DATE : 19950327
EP0018719 B1	19951122	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19950327
EP0018719 B1	19951201	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE LAPSED DATE : 19951201
EP0018719 B1	19960322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0018719 B1	20040326	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
EP0018719 B1	20000327	PEXP		Calculated Patent	

				Term Expiry	
EP0041574 A1	19811216	LSPB	+	published / reissued	
EP0041574 A1	19811216	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19810711
EP0041574 A4	19850109	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19840702
ES8104492 A1	19810416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8104492 A1	20010416	PEXP		Calculated Patent Term Expiry	
JP1648773 C3	19920313	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1648773 C3	20000401	PEXP		Calculated Patent Term Expiry	
JP2058474 B4	19901207	LSPB	+	published / reissued	
JP55160179 A2	19801212	LSPB	+	published / reissued	
JP56501767 T2	19811203	LSPB	+	published / reissued	
NO800907 A	19801003	LSPB	+	published / reissued	
NZ193232 A	19830930	LSPB	+	published / reissued	
US4214449 A	19800729	LSGT	+	granted / extensions (spc, cpc, pte)	
US4214449 A	19800729	LSGT	PAT1	Patented Case	
US4214449 A	19820322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRADE FINANCE INTERNATIONAL, P.O. BOX 500, GEORGET OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:SORENSEN JENS O.; REEL/FRAME:003956/0123 EFFECTIVE DATE : 19820318
US4214449 A	19840120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JENS OLE SORENSEN BOX 2274 RANCHO SANTA FE CA 9206 OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:TRADE FINANCE INTERNATIONAL A CAYMAN ISLANDS CORP; REEL/FRAME:004212/0496 EFFECTIVE DATE : 19830106
US4214449 A	19960315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SORENSEN,JENS OLE, CAYMAN ISLANDS OLDPARTY : CHANGE OF ADDRESS; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:007833/0748 EFFECTIVE DATE : 19960228
US4214449 A	20030509	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SORENSEN RESEARCH AND DEVELOPMENT, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:014022/0492 EFFECTIVE DATE : 20030421
US4333312 A	19820608	LSGT	+	granted / extensions (spc, cpc, pte)	
US4333312 A	19820322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRADE FINANCE INTERNATIONAL, P.O. BOX 500, GEORGET OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:SORENSEN JENS O.; REEL/FRAME:003956/0123 EFFECTIVE DATE : 19820318
US4333312 A	19820921	LSGT	PAT1	Patented Case	
US4333312 A	19820921	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4333312 A	19840120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JENS OLE SORENSEN BOX 2274 RANCHO SANTA FE CA 9206

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:TRADE FINANCE INTERNATIONAL A CAYMAN ISLANDS CORP; REEL/FRAME:004212/0496 EFFECTIVE DATE : 19830106
US4333312 A	19960315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SORENSEN,JENS OLE, CAYMAN ISLANDS OLDPARTY : CHANGE OF ADDRESS; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:007833/0748 EFFECTIVE DATE : 19960228
US4333312 A	20030509	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SORENSEN RESEARCH AND DEVELOPMENT, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:014022/0492 EFFECTIVE DATE : 20030421
US4333312 A	20000310	PEXP		Calculated Patent Term Expiry	
US4373339 A	19830215	LSGT	+	granted / extensions (spc, cpc, pte)	
US4373339 A	19820322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRADE FINANCE INTERNATIONAL, P.O. BOX 500, GEORGET OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:SORENSEN JENS O.; REEL/FRAME:003956/0123 EFFECTIVE DATE : 19820318
US4373339 A	19821215	LSGT	PAT1	Patented Case	
US4373339 A	19821215	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4373339 A	19840120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JENS OLE SORENSEN BOX 2274 RANCHO SANTA FE CA 9206 OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:TRADE FINANCE INTERNATIONAL A CAYMAN ISLANDS CORP; REEL/FRAME:004212/0496 EFFECTIVE DATE : 19830106
US4373339 A	19850617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRIMTEC, P.O. BOX 2403, RANCHO SANTA FE, CA 92067 OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:004419/0453 EFFECTIVE DATE : 19850613
US4373339 A	19850617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRIMTEC, A CORP OF CA,CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:004419/0453 EFFECTIVE DATE : 19850613
US4373339 A	19960315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SORENSEN,JENS OLE, CAYMAN ISLANDS OLDPARTY : CHANGE OF ADDRESS; ASSIGNOR:SORENSEN, JENS OLE; REEL/FRAME:007833/0748 EFFECTIVE DATE : 19960228
US4373339 A	20030509	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SORENSEN RESEARCH AND DEVELOPMENT, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SORENSEN, JENS

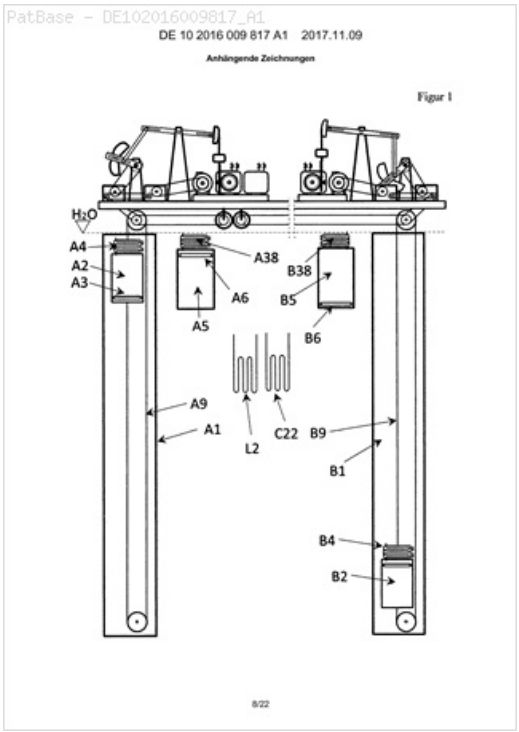
					OLE; REEL/FRAME:014022/0492 EFFECTIVE DATE : 20030421
WO8101724 A1	19810625	LSPB	+	published / reissued	
WO8101724 A1	19810708	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1981900257 COUNTRY OF REF DOCUMENT : EP
WO8101724 A1	19811216	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1981900257 COUNTRY OF REF DOCUMENT : EP
WO8101724 A1	19840702	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1981900257 COUNTRY OF REF DOCUMENT : EP
ZA8001676 A	19810624	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA8001676 A	20000320	PEXP		Calculated Patent Term Expiry	

38) Family number: 67437484 (DE102016009817A1)

Title: VORRICHTUNG ZUR ERZEUGUNG VON ELEKTRISCHER ENERGIE MITTELS AUFTRIEBSKRAEFTEN IN TIEFEN GEWAESSERN, DIE VON EINER WAERMEPUMPE UND DER EXPANSION VON VERFLUESSIGTEM CO2 ERZEUGT WERDEN. Apparatus FOR GENERATING **ELECTRICAL** ENERGY BY MEANS OF BUOYANCY FORCES IN DEEP grasses, THE CHOSEN FROM A HEAT PUMP AND THE EXPANSION OF LIQUEFIED CO2 MAY BE GENERATED. (Machine translation)

Abstract: Source: DE102016009817A1 [DE] Vorrichtung zur Erzeugung von elektrischer Energie mittels Auftriebskraeften in tiefen Gewaessern, die von einer Waermepumpe und der Expansion von verfluessigtem CO2 erzeugt werden. Bisher ging man davon aus, dass Auftriebskraefte in Gewaessern nicht genutzt werden koennen, weil aufgrund der Wirkungsgrade der Energieverbrauch einer entsprechenden Vorrichtung groesser waere als der Energiegewinn. Es wird sowohl die Verdampfungs- als auch die Kondensationsenergie einer Waermepumpe genutzt, um benoetigte Temperatur- und Druckunterschiede in mit Gas befuellte Behaelter (A2 and B2) zu erhalten, was zu einem Auftrieb der Behaelter innerhalb eines Schachtes (A1 bzw. B1) fuehrt. Waermetauscher erwaermen oder kuehlen das eingesetzte Gas, bzw. die Fluessigkeiten ab, um diese von einem Behaelter (A2/B2) in den anderen Behaelter (A5 bzw. B5) leiten zu koennen. Wegen der Nutzbarkeit der Energiebilanz einer Waermepumpe, kann eine positive Energieausbeute erzielt werden. Die Vorrichtung kommt als Stromerzeugungsanlage offshore, in tiefen Seen, oder in Bohrloechern an Land zum Einsatz. **Machine translation:** Apparatus for generating **electrical** energy by means of buoyancy forces in deep grasses, the chosen from a heat pump and the expansion of liquefied CO2 may be generated. Previously it was assumed that buoyancy forces in lenses may not be used, because due to the efficiencies of the energy consumption of a corresponding apparatus would be greater than the energy gain. It is both the evaporation and condensation energy of a heat pump is used to provide needed temperature and pressure differences in gas-filled container (A2 and B2), resulting in a buoyancy of the reservoir within a shaft (A1 or B1). Heat exchanger, heat or cool the gas, and the fluids from them from a reservoir (A2/B2) in the other container (A5 or B5). Because of the usability of the energy balance of a heat pump, a positive energy yield can be achieved. The device comes as a power generation plant offshore, in deep lakes, or in boreholes on land.

Classifications:
International (IPC 8-9): F03B17/02 (Advanced/Invention)
CPC: F03B17/04



Family:

Publication number	Publication date	Application number	Application date
DE102016009817 A1	20171109	DE201610009817	20160813

Priority:
DE201610005430 20160508

Probable Assignee: SEUFFERHELD JORGE EDUARDO
Assignee(s): (std): SEUFFERHELD JORGE EDUARDO
Inventor(s): (std): SEUFFERHELD JORGE EDUARDO

Legal status (INPADOC)

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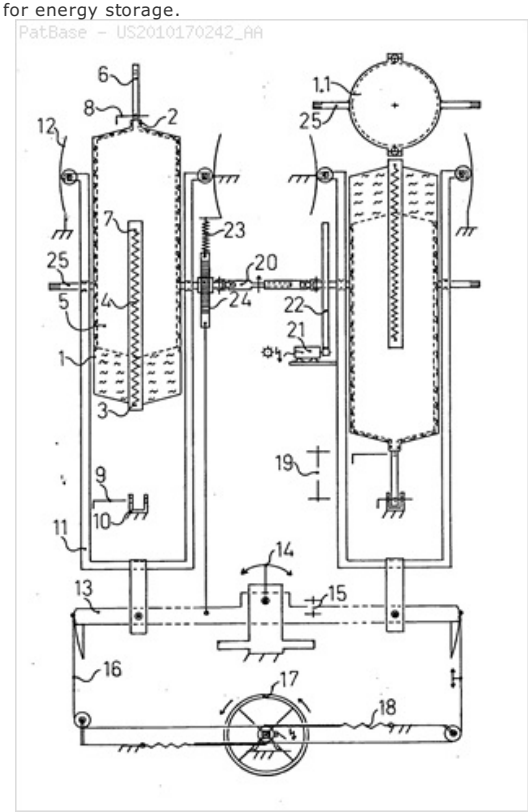
Patent	Date recorded	Event group	Code	Event	Details
DE102016009817 A1	20171109	LSPB	+	published / reissued	
DE102016009817 A1	20160813	LSLI	R086	NON-BINDING DECLARATION OF LICENSING INTEREST	

39) Family number: 45940499 (US2010170242A)

Title: DRIVE ENERGY THROUGH BUOYANCY-GRAVITATIONAL FORCE

Abstract: Buoyancy forces [N] and gravitational forces [N] of buoys in fluids are used as drive forces. Buoys are placed in one or more water-filled container/s. To use the buoyancy force [N], the buoys are connected to an energy storage device, herein springs. In addition, the buoys are temporarily connected to a reference system by either the container or a movable frame within the container. Upon fastening the containers to a movable system, both buoyancy and gravitational forces [N] are exerted via a short working stroke, producing effective energy. To repeat said energy supply, the movable system must resume the starting position. For this process to occur, internal and external energy may be used. In a technical application, this invention can supply electric energy via a gyrating mass, propel hydraulic or compressed air cylinders, or enable other repetitive motions (pumps.) The described system can also be used for energy storage.

Classifications:
International (IPC 8-9): F03B13/00 F03B17/00 F03B17/02 (Advanced/Invention); F03B13/00 (Core/Invention)
CPC: F03B17/005 F03B17/02
European: F03B17/00B F03B17/02 Y02E10/20
US: 60/497 60/497P



Family:

Publication number	Publication date	Application number	Application date
DE102009003909 A1	20100715	DE200910003909	20090103
DE102009003909 B4	20120524	DE200910003909	20090103
EP2204575 A2	20100707	EP20090015530	20091216
US2010170242 AA	20100708	US20090654348	20091217

Priority:
DE200910003909 20090103

Probable Assignee: IRPS HARTWIG
Assignee(s): (std): IRPS HARTWIG
Assignee(s): IRPS
Inventor(s): (std): IRPS HARTWIG
Inventor(s): ANTRAG AUF NICHTNENNUNG
Agent(s): HARTWIG IRPS
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE102009003909 A1	20100715	LSPB	+	published / reissued	
DE102009003909 A1	20100715	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE102009003909 A1	20110802	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
DE102009003909 A1	20110913	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102009003909 A1	20111026	LSRE	+R074	RE-ESTABLISHMENT ALLOWED	
DE102009003909 A1	20111031	LSRE	+R074	RE-ESTABLISHMENT ALLOWED	

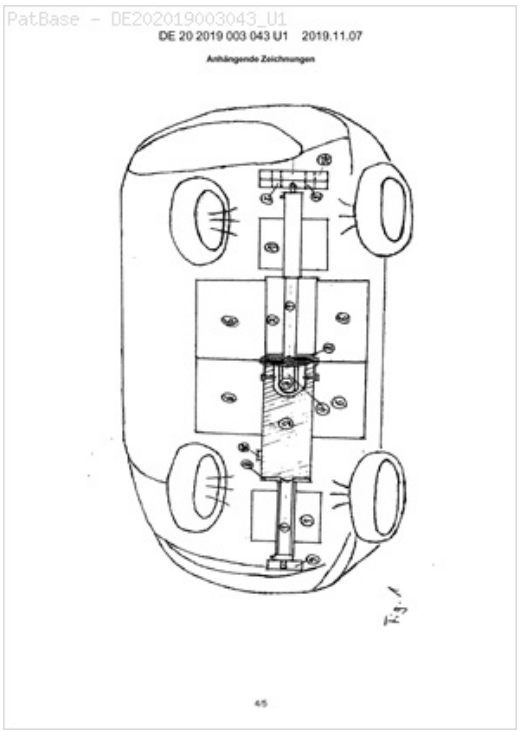
DE102009003909 A1	20120320	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102009003909 A1	20121129	LSGT	+R020	PATENT GRANT NOW FINAL	EFFECTIVE DATE : 20120825
DE102009003909 A1	20130729	LSLI	R084	DECLARATION OF WILLINGNESS TO LICENCE	
DE102009003909 A1	20160802	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
DE102009003909 B4	20120524	LSGT	+	granted / extensions (spc, cpc, pte)	
DE102009003909 B4	20290103	PEXP		Calculated Patent Term Expiry	
EP2204575 A2	20100707	LSPB	+	published / reissued	
EP2204575 A2	20140115	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130702
US2010170242 AA	20100708	LSPB	+	published / reissued	
US2010170242 AA	20131003	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

40) Family number: 76436519 (DE202019003043U1)

Title: HYDRAULIKLADESYSTEM MIT HYDRAULIKBATTERIELADEANLAGE Hydraulic CHARGE SYSTEM WITH HYDRAULIC BATTERY CHARGING SYSTEM (Machine translation)

Abstract: Source: DE202019003043U1 [DE] Hydraulikladesystem mit einer Hydraulikbatterieladeanlage zur Erzeugung elektrischer Leistung, insbesondere fuer den Antrieb von Elektrofahrzeugen und das Aufladen von darin verbauten Traktionsbatterien (6), umfassend Hydraulikzylinder (1), Wasserdruckbehaelter (2), eine Wasserturbine (3) und mindestens einen Elektromotor (7). **Machine translation:** Hydraulikladesystem with a hydraulic battery charger power plant for the generation of **electrical** power, in particular for driving electric vehicles and charging of traction batteries installed therein (6), comprising a hydraulic cylinder (1), Water Pressure Vessel (2), a water turbine (3) and at least one electric motor (7).

Classifications:
International (IPC 8-9)**:** B60K25/00 B60L53/50 F03B17/04 (Advanced/Invention)
CPC: B60L53/50 F03B13/00 F03B17/005 F05B2240/941 B60K1/00 B60K8/00 B60K25/00



Family:

Publication number	Publication date	Application number	Application date
DE202019003043 U1	20191107	DE201920003043U	20190722

Priority:
DE201920003043U 20190722

Probable Assignee: NITSCH PETER
Assignee(s): (std)**:** NITSCH PETER
Assignee(s): NITSCH

Legal status (INPADOC)

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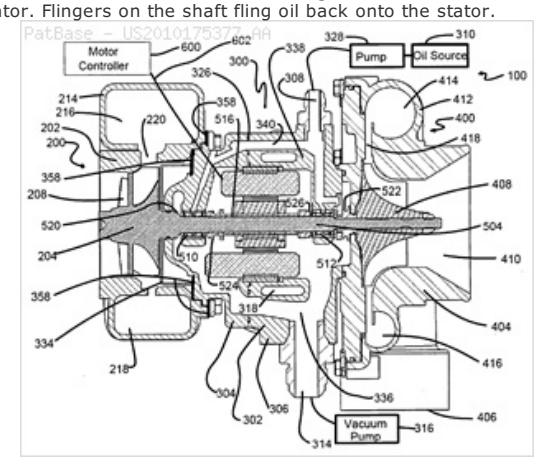
Patent	Date recorded	Event group	Code	Event	Details
DE202019003043 U1	20191107	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202019003043 U1	20191107	LSGT	R207	UTILITY MODEL SPECIFICATION	
DE202019003043 U1	20290722	PEXP		Calculated Patent Term Expiry	

41) Family number: 45960524 (US2010175377A)

Title: COOLING AN **ELECTRICALLY** CONTROLLED TURBOCHARGER

Abstract: An **electrically** controlled turbocharger has a motor mounted on a shaft in a motor housing between a turbine and compressor. Oil is sprayed onto the motor stator to cool the stator. Flingers on the shaft fling oil back onto the stator.

Classifications:
International (IPC 8-9): F01M1/00 F01M1/10 F02B29/04 F02B33/44 F02B37/00 F02B37/04 F02B37/10 F02B39/00 F02B39/10 F02B39/14 F02B39/16 F02C6/12 F02D23/00 F02G3/00 F03B11/00 F04B17/00 F04B35/00 F04B49/06 F04D29/58 (Advanced/Invention); F02B29/04 (Advanced/Non-invention); F02D23/00 F02G3/00 (Core/Invention)
CPC: F02D23/00 F05D2220/76 F05D2220/40 F05B2220/706 F05B2220/40 F02B37/10 F02B29/0412 F02B29/0475 F02B39/10 F02B39/14 F02C6/12 Y02T10/144 F01M11/02 F01M2011/021 F01P2060/12
European: F01M11/02 F02B37/10 F02B39/10 F02B39/14 F02C6/12 R01M11/02B R01P60/12 R02B29/04B2 R02B29/04D8 R05B220/40 R05B220/706
US: 184/6.16 184/6.24 415/110 415/110S 415/178 415/178S 417/366 417/407 417/44.1 417/44.100P 60/602 60/602P 60/605.3 60/607 60/608 60/616 60/616S



Family:

Publication number	Publication date	Application number	Application date
CN102301111 A	20111228	CN201080003517	20100112
DE112010000875 B4	20150513	DE201011000875T	20100112
DE112010000875 T5	20130627	DE201011000875T	20100112
DE112010000875 T9	20150219	DE201011000875T	20100112
GB201109843 A0	20110727	GB20110009843	20100112
GB2478877 A1	20110921	GB20110009843	20100112
GB2478877 A8	20120208	GB20110009843	20100112
IN01030MN2011 A	20111230	IN2011MN01030	20110521
JP2012515287 T2	20120705	JP20110545501T	20100112
JP5703501 B2	20150422	JP20110545501T	20100112
US2010175377 AA	20100715	US20090417568	20090402
US2010284824 AA	20101111	US20100840737	20100721
US7946118 BB	20110524	US20100840737	20100721
WO10081123 A1	20100715	WO2010US20707	20100112
WO10081123 A9	20101125	WO2010US20707	20100112

Priority:

US20090144123P 20090112 US20090417568 20090402 WO2010US20707 20100112
WO2010US20707 20100121 US20100840737 20100721

Probable Assignee: ECOMOTORS INC

Assignee(s): (std): ECO MOTORS INT INC ; ECO MOTORS INTERNAT INC ; ECOMOTORS INTERNATIONAL INC ; ECOMOTORS INT INC ; ECOMOTORS INT ; ECOMOTORS INTERNAT INC ; LAIMBOECK FRANZ ; HIPPEN WILL ; GARRARD TYLER ; HOFBAUER PETER ; ECOMOTORS INTERNAT

Assignee(s): ECO MOTORS INTERNATIONAL INC ; HERCULES TECHNOLOGY III LP ; FRANZ LAIMBOECK ; PETER HOFBAUER ; TYLER GARRARD ; WILL HIPPEN ; ECOMOTORS INTERNATIONAL ; ARES CAPITAL CORP ; BORGWARNER INC ; ECOMOTORS INC

Inventor(s): (std): HOFBAUER PETER ; GARRARD TYLER ; HIPPEN WILL ; LAIMBOECK FRANZ ; LAIMBOECK FRANZ J

Inventor(s): FRANZ LAIMBOECK ; PETER HOFBAUER ; TYLER GARRARD ; WILL HIPPEN

Agent(s): KOBAYASHI HISAO; AJIMA KIYOSHI; TAKANASHI NORIO; PAUL K GODWIN PAUL K GODWIN PC; DIANA D; GODWIN PAUL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN102301111 A	20111228	LSPB	+	published / reissued	
CN102301111 A	20111228	LSPB	+C06	PUBLICATION	
CN102301111 A	20140917	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
DE112010000875 B4	20150513	LSGT	+	granted / extensions (spc, cpc, pte)	
DE112010000875 B4	20120821	LSRE	+R074	RE-ESTABLISHMENT ALLOWED	

DE112010000875 B4	20120824	LSRE	+R074	RE-ESTABLISHMENT ALLOWED	
DE112010000875 B4	20121018	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	EFFECTIVE DATE : 20110706
DE112010000875 B4	20160216	LSGT	+R020	PATENT GRANT NOW FINAL	
DE112010000875 B4	20171110	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : BORGWARNER INC. (N.D.GES.D.STAATES DELAWARE), , US OLDPARTY : FORMER OWNER: ECOMOTORS INTERNATIONAL,INC., TROY, MICH., US
DE112010000875 B4	20300112	PEXP		Calculated Patent Term Expiry	
DE112010000875 T5	20130627	LSPB	+	published / reissued	
DE112010000875 T5	20140820	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE112010000875 T5	20150123	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
GB2478877 A1	20110921	LSPB	+	published / reissued	
GB2478877 A8	20141001	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
IN01030MN2011 A	20111230	LSPB	+	published / reissued	
JP2012515287 T2	20120705	LSPB	+	published / reissued	
JP2012515287 T2	20130111	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130110
JP2012515287 T2	20131030	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20131029
JP2012515287 T2	20140214	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140213
JP2012515287 T2	20140716	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140715
JP2012515287 T2	20141010	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141009
JP2012515287 T2	20150115	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012515287 T2	20150128	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150127
JP2012515287 T2	20150212	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150203
JP2012515287 T2	20150306	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5703501 COUNTRY OF REF DOCUMENT : JP
JP5703501 B2	20150422	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5703501 B2	20150129	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5703501 B2	20150210	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5703501 B2	20150306	LSGT	+R150	特許証 (Patent certificate)	
JP5703501 B2	20180301	LSFE	R20	特許料納付書 (Patent	

				fee payment form)	
JP5703501 B2	20180306	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5703501 B2	20190307	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5703501 B2	20190312	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5703501 B2	20300112	PEXP		Calculated Patent Term Expiry	
US2010175377 AA	20100715	LSPB	+	published / reissued	
US2010175377 AA	20090403	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ECOMOTORS, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HIPPEN, WILL; LAIMBOECK, FRANZ; HOFBAUER, PETER; AND OTHERS; SIGNING DATES FROM 20090401 TO 20090402; REEL/FRAME:022501/0974
US2010175377 AA	20110202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HERCULES TECHNOLOGY III, L.P., CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:ECOMOTORS, INC.; REEL/FRAME:025733/0735 EFFECTIVE DATE : 20110127
US2010175377 AA	20110913	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2010175377 AA	20130110	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ECOMOTORS, INC., MICHIGAN OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HERCULES TECHNOLOGY III, L.P.; REEL/FRAME:029604/0260 EFFECTIVE DATE : 20130109
US2010284824 AA	20101111	LSPB	+	published / reissued	
US2010284824 AA	20110202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HERCULES TECHNOLOGY III, L.P., CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:ECOMOTORS, INC.; REEL/FRAME:025733/0735 EFFECTIVE DATE : 20110127
US2010284824 AA	20110504	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7946118 BB	20110524	LSGT	+	granted / extensions (spc, cpc, pte)	
US7946118 BB	20110504	LSGT	PAT1	Patented Case	
US7946118 BB	20130110	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ECOMOTORS, INC., MICHIGAN OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HERCULES TECHNOLOGY III, L.P.; REEL/FRAME:029604/0260 EFFECTIVE DATE : 20130109
US7946118 BB	20130131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARES CAPITAL CORPORATION, ILLINOIS OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:ECOMOTORS, INC.; REEL/FRAME:029732/0677 EFFECTIVE DATE : 20130117
US7946118 BB	20141029	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7946118 BB	20151112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

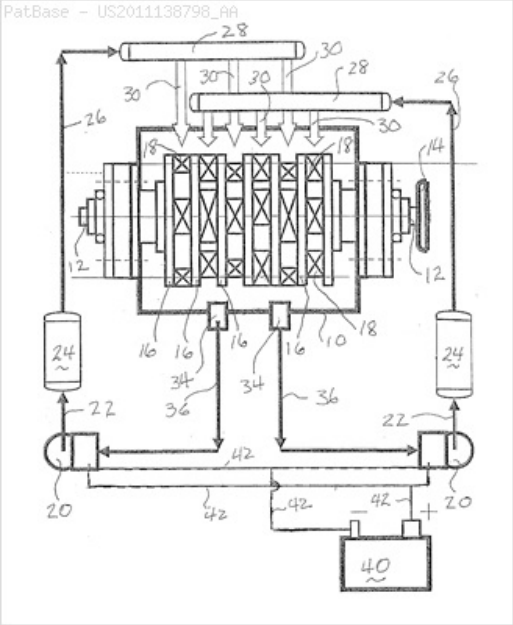
					OWNER : ARES CAPITAL CORPORATION, NEW YORK OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ADDRESS OF ASSIGNEE PREVIOUSLY RECORDED ON REEL 029732 FRAME 677. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:ECOMOTORS, INC.; REEL/FRAME:037102/0457 EFFECTIVE DATE : 20130117
US7946118 BB	20170804	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BORGWARNER INC., MICHIGAN OLDPARTY : NUNC PRO TUNC ASSIGNMENT; ASSIGNOR:ECOMOTORS, INC.; REEL/FRAME:043200/0379 EFFECTIVE DATE : 20170320
US7946118 BB	20181024	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7946118 BB	20300721	PEXP		Calculated Patent Term Expiry	
WO10081123 A1	20100715	LSPB	+	published / reissued	
WO10081123 A1	20100112	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080003517.6 COUNTRY OF REF DOCUMENT : CN
WO10081123 A9	20110521	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1030/MUMNP/2011 COUNTRY OF REF DOCUMENT : IN
WO10081123 A9	20110613	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	TEXT : PCT FILING DATE = 20100112 REF DOCUMENT NUMBER : 1109843 COUNTRY OF REF DOCUMENT : GB KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO10081123 A9	20110613	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1109843.1 COUNTRY OF REF DOCUMENT : GB
WO10081123 A9	20110712	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011545501 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO10081123 A9	20110712	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 112010000875 COUNTRY OF REF DOCUMENT : DE
WO10081123 A9	20110712	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1120100008752 COUNTRY OF REF DOCUMENT : DE
WO10081123 A9	20120808	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 10729647 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO10081123 A9	20120927	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE EFFECTIVE DATE : 20110712

42) Family number: 49092524 (US2011138798A)

Title: MULTIPLE CELL HORIZONTAL LIQUID TURBINE ENGINE

Abstract: A multiple cell horizontal turbine type engine that is capable of developing high speed (RPM) and high torque (Ft-Lbs) capacity that can be used widely in automotive industries and other types of applications that require movement. The engine does not require gasoline or any type of fuel to operate, it uses re-circulating high pressure liquid (mixture of water and anti-freeze solution) to turn the turbine.

Classifications:
International (IPC 8-9): F03B1/00 F03B1/04 F03B11/06 F03B15/20 F03B17/00 F15B1/033 F16H43/00 (Advanced/Invention)
CPC: F03B3/00 Y02E10/223
European: F03B3/00 Y02E10/20 Y02E10/22B Y02E10/22D
US: 60/325 60/325S 60/416 60/416P



Family:

Publication number	Publication date	Application number	Application date
US2011138798 AA	20110616	US20100967826	20101214
WO11085411 A2	20110714	WO2011US24319	20110210
WO11085411 A3	20111027	WO2011US24319	20110210
WO11085411 A8	20110825	WO2011US24319	20110210

Priority:
US20090287027P 20091216 US20100967826 20101214

Probable Assignee: INVENTUROUS LLC
Assignee(s): (std): INVENTUROUS LLC
Inventor(s): (std): REYES RENATO D
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2011138798 AA	20110616	LSPB	+	published / reissued	
US2011138798 AA	20110413	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INVENTUROUS, LLC, PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:REYES, RENATO D.; REEL/FRAME:026120/0329 EFFECTIVE DATE : 20110407
US2011138798 AA	20151113	LSES	NFA1	Non Final Action Mailed	
US2011138798 AA	20170525	LSAL	NAF1	Notice of Appeal Filed	
US2011138798 AA	20180221	LSAL	EAA1	Examiner's Answer to Appeal Brief Mailed	
US2011138798 AA	20180531	LSWD	-ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
WO11085411 A2	20110714	LSPB	+	published /	

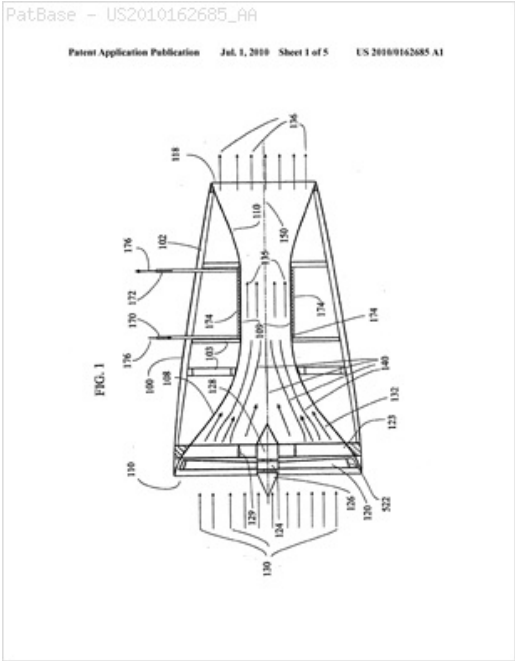
				reissued	
WO11085411 A3	20120618	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11085411 A3	20130109	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 11732339 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

43) Family number: 41476531 (US2010162685A)

Title: A METHOD FOR COOLING AIR AND DEVICES

Abstract: A method of constructing self-powered air-conditioner comprises a convergent divergent nozzle where powered fan pushes air into said nozzle. While the pushed air accelerates toward the nozzle throat it becomes colder as air internal energy transformed into kinetic energy. An axial turbine installed within the nozzle throat extracts energy from the air in the nozzle and drives an **electrical** **generator** that provides electricity to the fan electric motor. Alternatively the turbine and fan are installed on common shaft, which could be the electric **generator** shaft. The cold air within the nozzle throat cools the nozzle throat skin, which serves as air-conditioner core. The cold nozzle skin is wrapped with coiled pipes in which liquid flows, becomes colder and this cold liquid flows away to heat exchanger where air is flowing through it and becomes colder. This cold air is then flows into spaces needed to be air-conditioned.

Classifications:
International (IPC 8-9): F01K25/02 F02C1/04 F02K99/00 F03B13/00 F04B17/00 F25B F25B1/053 F25B9/00 F25D9/00
F28F7/00 (Advanced/Invention);
F03B17/04 (Advanced/Non-invention);
F02K99/00 F03B13/00 F04B17/00 F25B1/04 F25B9/00
F28F7/00 (Core/Invention);
F03B17/00 (Core/Non-invention)
CPC: F25B9/00 F25B9/004
European: F25B9/00 R25B9/00B2
US: 165/121 165/185 290/54 415/916 60/266 60/650 60/682 62/402 62/87



Family:

Publication number	Publication date	Application number	Application date
IL177383 A0	20061210	IL20060177383	20060809
IL177383 A1	20160229	IL20060177383	20060809
US2010162685 AA	20100701	US20070376785	20070809
US8978381 BB	20150317	US20070376785	20070809
WO08018078 A2	20080214	WO2007IL00998	20070809
WO08018078 A3	20090507	WO2007IL00998	20070809

Priority:
IL20060177383 20060809 WO2007IL00998 20070809

Probable Assignee: ISRAEL HIRSHBERG

Assignee(s): (std): HIRSHBERG ISRAEL ; ISRAEL HIRSHBERG

Inventor(s): (std): HIRSHBERG ISRAEL ; ISRAEL HIRSHBERG

Agent(s): EDWARD LANGER C O SHIBOLETH YISRAELI ROBERTS ZISMAN AND CO; EDWARD LANGER ADV AND PATENT ATTORNEY

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
IL177383 A1	20160229	LSPB	+	published / reissued	
IL177383 A1	20160630	LSGT	+FF	PATENT GRANTED	
IL177383 A1	20170330	LSLE	-MM9K	PATENT NOT IN FORCE DUE TO NON-PAYMENT OF RENEWAL FEES	
US2010162685 AA	20100701	LSPB	+	published / reissued	
US2010162685 AA	20150225	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

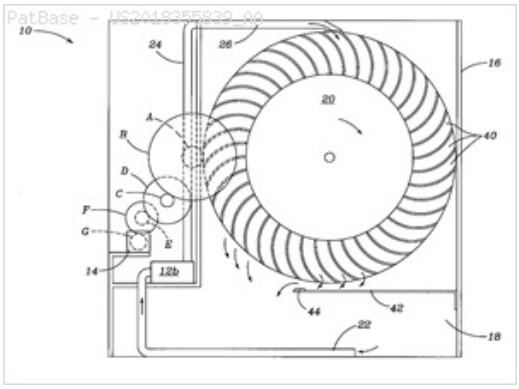
US8978381 BB	20150317	LSGT	+	granted / extensions (spc, cpc, pte)	
US8978381 BB	20150225	LSGT	PAT1	Patented Case	
US8978381 BB	20181105	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8978381 BB	20190312	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : SURCHARGE FOR LATE PAYMENT, SMALL ENTITY (ORIGINAL EVENT CODE: M2554); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8978381 BB	20190312	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8978381 BB	20320223	PEXP		Calculated Patent Term Expiry (PTA 1659 days)	
WO08018078 A2	20080214	LSPB	+	published / reissued	
WO08018078 A2	20090210	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08018078 A2	20090309	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO08018078 A3	20090629	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12376785 COUNTRY OF REF DOCUMENT : US
WO08018078 A3	20091230	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 07805480 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

44) Family number: 72373550 (US2018355839A)

Title: PORTABLE SELF-CONTAINED MULTI-FLUID **ELECTRICAL** **GENERATOR**

Abstract: Local **electrical** power generation using a self-sustaining, self-contained recirculating fluidic flow generating apparatus capable of operating a power wheel with any one of several different fluids is interconnected using a series of gears to an **electrical** power generating apparatus. The fluid is used to move and continue moving the power wheel in a single direction using a top fed overshoot and back flow method to produce rotation of the wheel. Movement of the wheel produces enhanced rotational force through the interconnection to and through the series of gears ultimately powering the **electrical** generating apparatus to produce **electrical** power sufficient to sustain the generating apparatus and power itself and a limited number of **electrical** devices.

Classifications:
International (IPC 8-9): F03B13/00 F03B17/00 F03B7/00 F03G7/10 H02K5/10 H02K7/116 H02K7/18 (Advanced/Invention)
CPC: F03B7/00 F03B15/005 F03B17/005 F05B2260/4031
US: 1/1 290/54



Family:

Publication number	Publication date	Application number	Application date
CA3038079 AA	20191212	CA20193038079	20190326
US2018355839 AA	20181213	US20180005891	20180612

Priority:

US20170518054P 20170612 US20180005891 20180612

Probable Assignee: KROBOTH ANTHONY F
Assignee(s): (std): KROBOTH ANTHONY F
Inventor(s): (std): KROBOTH ANTHONY F
Agent(s): OSLER HOSKIN AND HARCOURT LLP

Legal status (INPADOC)

View legal status timeline

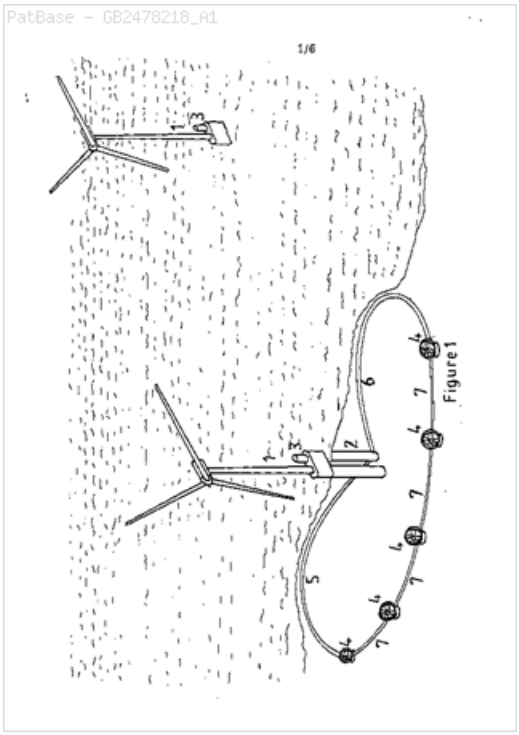
Patent	Date recorded	Event group	Code	Event	Details
CA3038079 AA	20191212	LSPB	+	published / reissued	
US2018355839 AA	20181213	LSPB	+	published / reissued	
US2018355839 AA	20190409	LSES	NFA1	Non Final Action Mailed	

45) Family number: 49371562 (GB2478218A)

Title: INTEGRATED OFFSHORE WIND AND TIDAL POWER SYSTEM

Abstract: An integrated offshore wind and tidal power system where the tidal power system has a plurality of submerged impeller driven pumps 4 connected in closed fluid loop to drive a turbine such as a reaction turbine which powers a **generator** 3 which is mounted above the water surface on an offshore wind turbine support structure 2 or on a separate structure next to the wind turbine support structure. Preferably each impeller drives a centrifugal pump via a gear box and each of the pump units are connected in series. The impeller and pump units may be mounted on submerged structures secured by piling or by a gravity base on the seabed.

Classifications:
International (IPC 8-9): F03B13/26 F03B17/06 F03D9/00 (Advanced/Invention)
CPC: Y02P80/158 F03B13/264 F05B2240/95 Y02E10/28 Y02E10/72 F03D9/008 F03D13/25 F03B17/061
European: F03B13/26C F03D9/00F R05B240/95 Y02E10/28 Y02E10/72



Family:

Publication number	Publication date	Application number	Application date
GB201108695 A0	20110706	GB20110008695	20110524
GB2478218 A1	20110831	GB20110008695	20110524

Priority:
GB20110008695 20110524

Probable Assignee:	DONNELL JAMES O
Assignee(s): (std):	DONNELL JAMES O ; O DONNELL JAMES
Assignee(s):	JAMES O DONNELL
Inventor(s): (std):	O DONNELL JAMES
Inventor(s):	JAMES O DONNELL

Legal status (INPADOC)

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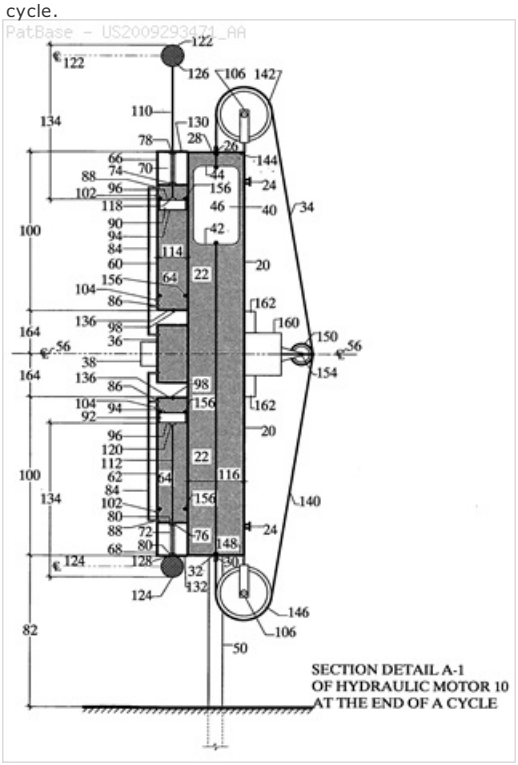
Patent	Date recorded	Event group	Code	Event	Details
GB2478218 A1	20110831	LSPB	+	published / reissued	
GB2478218 A1	20160316	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	

46) Family number: 44048563 (US2009293471A)

Title: HYDRAULIC MOTOR USING BUOYANT AND GRAVITATIONAL FORCES TO GENERATE KINETIC ENERGY

Abstract: A motor mounted on a structural support with a pivot at its center line which comprises a cylindrical vessel for holding a fluid in a closed system and in which a buoyant cylinder containing a lighter fluid is allowed to free float so that a cable attached to either end of the buoyant cylinder may be used to transfer energy to a energy storage unit, a crank or a **generator**. Two moment arms having a weight attached at the exterior end and inside attachably connected to the surface of two drive pistons that operate in pressure tanks which force a compressed gas against the pistons through pre-sequenced automatic activated valves to extend or retract the moment arms at the end of a cycle. The motor then becomes top heavy and rotates 180 degrees by gravity and relocks in place to repeat the cycle.

Classifications:
International (IPC 8-9): F02B63/04 F03B17/00 F03B17/02 F03B17/06 F03G3/00 F03G7/08 F16D31/02 H02K7/18 (Advanced/Invention); F02B63/00 F03B17/00 F03G3/00 F03G7/00 F16D31/02 H02K7/18 (Core/Invention)
CPC: Y02E10/28 F03B17/00 Y02E10/20
European: F03B17/00 Y02E10/20
US: 185/33 185/7 290/1R 60/398 60/495 60/495P 60/640 60/721 604/95



Family:

Publication number	Publication date	Application number	Application date
US2009293471 AA	20091203	US20080156614	20080603
US2010319339 AA	20101223	US20100802749	20100614
US7765804 BB	20100803	US20080156614	20080603
US8307642 BB	20121113	US20100802749	20100614

Priority:
US20080156614 20080603 US20100802749 20100614

Probable Assignee: DAVIS STEPHEN E
Assignee(s): (std): DAVIS STEPHEN E
Inventor(s): (std): DAVIS STEPHEN E
Agent(s): STEPHEN E DAVIS

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2009293471 AA	20091203	LSPB	+	published / reissued	
US2009293471 AA	20100714	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010319339 AA	20101223	LSPB	+	published / reissued	
US2010319339 AA	20121024	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7765804 BB	20100803	LSGT	+	granted / extensions (spc, cpc, pte)	
US7765804 BB	20100714	LSGT	PAT1	Patented Case	
US7765804 BB	20140403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7765804 BB	20170827	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8

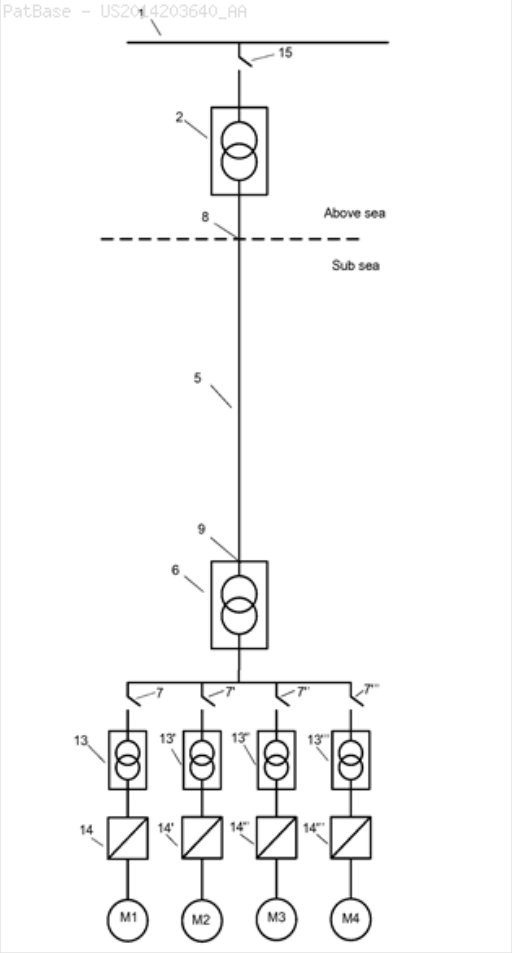
US7765804 BB	20290123	PEXP		Calculated Patent Term Expiry (PTA 234 days)	
US8307642 BB	20121113	LSGT	+	granted / extensions (spc, cpc, pte)	
US8307642 BB	20121024	LSGT	PAT1	Patented Case	
US8307642 BB	20160403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8307642 BB	20191230	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8307642 BB	20310510	PEXP		Calculated Patent Term Expiry (PTA 330 days)	

47) Family number: 53204577 (US2014203640A)

Title: DEVICE FOR STABLE SUBSEA ELECTRIC POWER TRANSMISSION TO RUN SUBSEA HIGH SPEED MOTORS OR OTHER SUBSEA LOADS

Abstract: The invention provides a device for operative connection between a subsea step out cable far end and subsea loads such as pumps, compressors and control systems, distinctive in that the device is a rotating frequency stepper device, more specifically a rotating step up or step down device, and it comprises: a motor and a **generator** operatively connected so that the motor drives the **generator**, at least one gas and/or liquid filled vessel into which at least one of the motor and **generator** are arranged, and the step out length is long, which means long enough to cause problems due to the Ferranti effect at frequency and power levels feasible for subsea pump and compressor motors, and where the device via the step out cable receives input **electrical** power at a low enough frequency to have stable transmission and the device, operatively connected to the subsea motor, delivers an output **electrical** frequency, amperage and voltage feasible for operation of the connected motors. System for pressure boosting of hydrocarbon fluid or other fluid subsea, comprising the device.

Classifications:
International (IPC 8-9): F03B13/10 F03B13/14 H02J3/22 H02J3/36 H02K47/20 H02M5/32 H02P5/74 (Advanced/Invention); H02J3/22 (Core/Invention)
CPC: H02M5/32 H02J3/22 H02P5/74 Y02E10/38 Y10T307/406
US: 307/31



Family:

Publication number	Publication date	Application number	Application date
AU2012309236 AA	20130321	AU20120309236	20120911
AU2012309236 BB	20170608	AU20120309236	20120911
CA2846208 AA	20140219	CA20122846208	20120911
CN103797676 A	20140514	CN201280044465	20120911
CN103797676 B	20180424	CN201280044465	20120911
GB201402774 A0	20140402	GB20140002774	20120911
GB2507446 A1	20140430	GB20140002774	20120911
GB2507446 B2	20170111	GB20140002774	20120911
IN00384KN2014 A	20140418	IN2014KN00384	20140221
NO20111233 A	20130313	NO20110001233	20110912
NO334144 B1	20131216	NO20110001233	20110912
RU2014112014 A	20151020	RU20140112014	20120911
RU2614741 C2	20170329	RU20140112014	20120911
TH142346 A	20150803	TH20141001257	20120911
US2014203640 AA	20140724	US20120240932	20120911
US9728968 BB	20170808	US20120240932	20120911
WO13039404 A1	20130321	WO2012NO50174	20120911

Priority:
NO20110001233 20110912 WO2012NO50174 20120911

Probable Assignee: AKER ASA
Assignee(s): (std): AKER SUBSEA AS ; STINESSEN KJELL OLAV
Assignee(s): AKER ASA ; AKER SOLUTIONS AS
Inventor(s): (std): STINESSEN KJELL OLAV ; STINESSEN KHELL OLAV ; KJELL OLAV STINESSEN
Agent(s): GRIFFITH HACK; PERLEY ROBERTSON HILL AND MCDOUGALL LLP; WINSTEAD PC; PROTECTOR IP CONSULTANTS AS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2012309236 AA	20130321	LSPB	+	published / reissued	
AU2012309236 BB	20170608	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2012309236 BB	20171005	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012309236 BB	20180426	LSAS	HB	ALTERATION OF NAME IN REGISTER	PARTYTYPE : OWNER OWNER : AKER SOLUTIONS AS OLDPARTY : FORMER NAME(S): AKER SUBSEA AS
AU2012309236 BB	20320911	PEXP		Calculated Patent Term Expiry	
CA2846208 AA	20140219	LSPB	+	published / reissued	
CA2846208 AA	20170602	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20170530
CN103797676 A	20140514	LSPB	+	published / reissued	
CN103797676 A	20140514	LSPB	+C06	PUBLICATION	
CN103797676 A	20140514	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN103797676 B	20180424	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103797676 B	20180424	LSGT	+GR01	PATENT GRANT	
CN103797676 B	20190312	LSAS	CP03	CHANGE OF NAME, TITLE OR ADDRESS	
CN103797676 B	20190312	LSAS	CP03	专利权人的姓名或者名称、地址的变更 (Change of the name or address of a patentee)	TEXT : 专利权人的姓名或者名称、地址的变更 (THE NAME OR ADDRESS OF A PATENTEE) PATENTEE AFTER CHANGE : 阿克世盛股份有限公司 (AKBAR BOSCH SHENG CO., LTD.) PATENTEE BEFORE CHANGE : 阿克海底公司 (AKER SUBSEA AS)
CN103797676 B	20320911	PEXP		Calculated Patent Term Expiry	
GB2507446 A1	20140430	LSPB	+	published / reissued	
GB2507446 B2	20170111	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2507446 B2	20320911	PEXP		Calculated Patent Term Expiry	
IN00384KN2014 A	20140418	LSPB	+	published / reissued	
NO20111233 A	20130313	LSPB	+	published / reissued	
NO334144 B1	20131216	LSGT	+	granted / extensions (spc, cpc, pte)	
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NO334144 B1	20310912	PEXP		Calculated Patent Term Expiry	
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RU2614741 C2	20170329	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2614741 C2	20190625	LSAS	PD4A	CORRECTION OF NAME OF PATENT OWNER	
RU2614741 C2	20320911	PEXP		Calculated Patent Term Expiry	
TH142346 A	20150803	LSPB	+	published / reissued	
US2014203640 AA	20140724	LSPB	+	published / reissued	
US2014203640 AA	20170302	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AKER SOLUTIONS

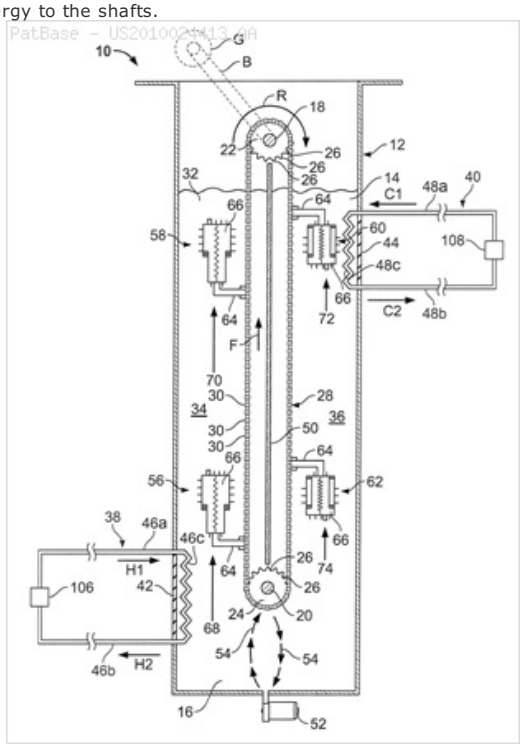
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US2014203640 AA	20170424	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014203640 AA	20170630	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2014203640 AA	20170706	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014203640 AA	20170719	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9728968 BB	20170808	LSGT	+	granted / extensions (spc, cpc, pte)	
US9728968 BB	20140430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AKER SUBSEA AS, NORWAY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STINESSEN, KJELL OLAV; REEL/FRAME:032787/0229 EFFECTIVE DATE : 20140410
US9728968 BB	20170719	LSGT	PAT1	Patented Case	
US9728968 BB	20340826	PEXP		Calculated Patent Term Expiry (PTA 714 days)	
WO13039404 A1	20130321	LSPB	+	published / reissued	
WO13039404 A1	20140217	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	TEXT : PCT FILING DATE = 20120911 REF DOCUMENT NUMBER : 1402774 COUNTRY OF REF DOCUMENT : GB KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13039404 A1	20140217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1402774.2 COUNTRY OF REF DOCUMENT : GB
WO13039404 A1	20140219	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2846208 COUNTRY OF REF DOCUMENT : CA
WO13039404 A1	20140225	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14240932 COUNTRY OF REF DOCUMENT : US
WO13039404 A1	20140306	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012309236 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120911 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13039404 A1	20140312	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13039404 A1	20140414	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014112014 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13039404 A1	20141008	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12831694 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

48) Family number: 44322603 (US2010024413A)

Title: ENGINE FOR ENERGY CONVERSION

Abstract: An engine is powered by a hot liquid zone and a cold liquid zone. A plurality of fluid-tight containers, each which contains a working fluid which expands when exposed to the hot liquid zone and contracts when exposed to the cold liquid zone, are attached to a loop which rotates over sprockets attached to shafts. The difference in the buoyant forces acting on the containers exposed to the hot liquid zone versus the buoyant forces acting on the containers exposed to the cold liquid zone produces motion in the loop which imparts rotational kinetic energy to the shafts.

Classifications:
International (IPC 8-9): F01D25/28 F01K27/00 F03B17/00 F03B17/02 F03B9/00 F03G7/04 F03G7/06 (Advanced/Invention); F03B17/00 F03G7/06 (Core/Invention)
CPC: F01K27/00 F05B2260/20 F03G6/02 F03G7/05 Y02E10/46 F03B17/04 F03B17/00 F03B17/02 Y02E10/20
European: F03B17/02 Y02E10/20
US: 1/1 415/7 60/495 60/496 60/496P



Family:

Publication number	Publication date	Application number	Application date
CN104736801 A	20150624	CN201380052969	20130815
EP2898193 A1	20150729	EP20130829348	20130815
EP2898193 A4	20160713	EP20130829348	20130815
IN00589KN2015 A	20150717	IN2015KN00589	20150309
JP2015526638 T2	20150910	JP20150527635T	20130815
KR20150068950 A	20150622	KR20157006735	20130815
US2010024413 AA	20100204	US20090533031	20090731
US2011083430 AA	20110414	US20100909114	20101021
US2013205768 AA	20130815	US20130841137	20130315
US2016169189 AA	20160616	US20160048418	20160219
US8453443 BB	20130604	US20100909114	20101021
US9267489 BB	20160223	US20130841137	20130315
WO10017127 A2	20100211	WO2009US52553	20090803
WO10017127 A3	20100506	WO2009US52553	20090803
WO11050156 A2	20110428	WO2010US53536	20101021
WO11050156 A3	20110728	WO2010US53536	20101021
WO14028743 A1	20140220	WO2013US55151	20130815

Priority:

US20080085978P 20080804 US20090533031 20090731 JP20110522162 20090804
US20090253656P 20091021 US20100909114 20101021 US20120684206P 20120817
US20130841137 20130315 WO2013US55151 20130815 US20160048418 20160219

Probable Assignee: KIM SEONG WOONG
Assignee(s): (std): KIM SEONG WOONG
Inventor(s): (std): KIM SEONG WOONG
Inventor(s): KIM SEONG
Agent(s): TRINKS OLE; MARUYAMA AND CO; GREENBERG TRAURIG LLP; GREENBERT TRAURIG LLP; KIM JOHN K
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN104736801 A	20150624	LSPB	+	published /	

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CN104736801 A	20150624	LSPB	+C06	PUBLICATION	
CN104736801 A	20170630	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
EP2898193 A1	20150729	LSPB	+	published / reissued	
EP2898193 A1	20150729	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150303
EP2898193 A1	20160713	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20160609
EP2898193 A1	20170705	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20170110
IN00589KN2015 A	20150717	LSPB	+	published / reissued	
JP2015526638 T2	20150910	LSPB	+	published / reissued	
KR20150068950 A	20150622	LSPB	+	published / reissued	
KR20150068950 A	20180916	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
US2010024413 AA	20100204	LSPB	+	published / reissued	
US2010024413 AA	20120720	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2011083430 AA	20110414	LSPB	+	published / reissued	
US2013205768 AA	20130815	LSPB	+	published / reissued	
US2013205768 AA	20160203	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016169189 AA	20160616	LSPB	+	published / reissued	
US2016169189 AA	20170412	LSES	NFA1	Non Final Action Mailed	
US2016169189 AA	20171108	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US8453443 BB	20130604	LSGT	+	granted / extensions (spc, cpc, pte)	
US8453443 BB	20130515	LSGT	PAT1	Patented Case	
US8453443 BB	20170604	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8453443 BB	20170704	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8453443 BB	20170704	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
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US8453443 BB	20301021	PEXP		Calculated Patent Term Expiry	
US9267489 BB	20160223	LSGT	+	granted / extensions (spc, cpc, pte)	
US9267489 BB	20151006	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
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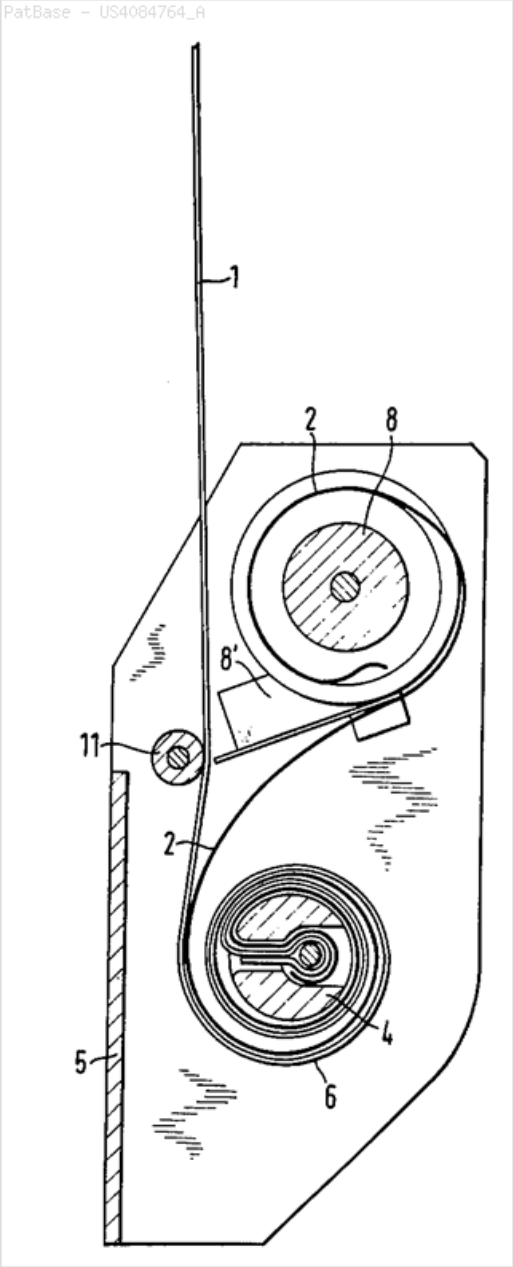
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US9267489 BB	20200104	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9267489 BB	20330926	PEXP		Calculated Patent Term Expiry (PTA 195 days)	
WO10017127 A2	20100211	LSPB	+	published / reissued	
WO10017127 A3	20111019	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09805394 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO10017127 A3	20120131	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11050156 A2	20110428	LSPB	+	published / reissued	
WO11050156 A3	20120423	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11050156 A3	20121114	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 10825664 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO14028743 A1	20140220	LSPB	+	published / reissued	
WO14028743 A1	20150216	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015527635 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14028743 A1	20150217	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14028743 A1	20150317	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20157006735 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

49) Family number: 5419610 (US4084764A)

Title: Device for winding up a belt or web

Abstract: A dispenser for a retractable safety belt, to be used by the driver of a vehicle, comprises a holder in which a roller loaded by a retraction spring is journaled. The belt, anchored to the roller and partly wound around it, coacts with an insert in the form of a resilient ribbon which is coiled with the belt about the roller during at least an initial phase of a pull-out stroke and about a collateral axis alongside the belt during at least a final phase of that stroke of exert upon the belt a supplemental biasing force which either aids the force of the retraction spring in the initial phase or opposes it in the final phase. The changeover between the two phases can be brought about by a beginning windup of the free ribbon end, by a diversity of inherent stress in two longitudinally adjoining ribbon sections, or by a detent responsive to the coil diameter which holds the ribbon away from the belt in the final phase of pull-out and lets it rejoin the belt at an intermediate stage of the retraction step.

Classifications:
International (IPC 8-9): B01D45/08 B01D45/16 B41F13/70 B41F31/10 B41F31/14 B60R22/44 B60R22/46 B63B21/20 B65H29/12 B65H29/40 D07B1/02 D07B1/16 D07B1/20 (Advanced/Invention); B01D45/00 B01D45/12 B41F13/54 B60R22/34 B60R22/46 B65H29/00 B65H29/38 (Core/Invention)
International (IPC 1-7): A62B35/00 A62B35/02 B01D45/00 B01D45/04 B01D45/06 B01D45/08 B01D45/16 B01D46/04 B41F13/54 B41F13/70 B60R21/10 B65H17/06 B65H23/08 B65H29/14 B65H29/40 B65H29/42 B65H29/58 B65H3/40 B65H33/06 B65H75/34 B65H75/48 F01B29/00 F02N13/00 F03B1/00 F03C2/00 F04F1/06 G05D17/00
CPC: B01D45/16 B60R2022/4406 B01D45/08 B41F13/70 B41F31/10 B41F31/14 B63B21/20 B63B2021/005 D07B1/02 D07B1/162 D07B2201/2053 D07B2501/2061 Y10S101/32 B60R22/4628 B60R22/1954 B60R22/44 B60R2022/4426 B65H29/12 B65H29/40 B65H2301/4212 B65H2404/261 B65H2801/21
European: A62B35/00 B01D45/08 B01D45/16 B41F13/70 B60R22/195D B60R22/44 B60R22/46D B65H29/12 B65H29/40 L60R22/44B L60R22/44D1 L65H301/4212 L65H404/261 L65H801/21
US: 242/107 242/373 271/178 271/187 271/303 271/64 55/423 55/440 60/632



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Publication number	Publication date	Application number	Application date
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SE424705 B	19820809	SE19770003884	19770404
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ZA7804591 A	19790829	ZA19780004591	19780814

Priority:

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DE19762635771 19760809 DE19762635770 19760809 DE19762644315 19761001
DE19772738257 19770825 CA19780309959 19780824

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Inventor(s): REGEHR ULRICH DE ; SPEITKAMP LUDWIG DE ; HANNEMANN HORST DE ; W MOSER ; H MOGERLEIN ; L SPEITKAMP ; 2 H HANNEMANN ; 1 U REGEHR ; U REGEHR ; 3 L SPEITKAMP ; H HANNEMANN ; MOEGERLEIN HEINRICH ING GRAD 8900 AUGSBURG DE ; MOSER ING GRAD WERNER ; MOEGERLEIN

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Agent(s): BORDEN LADNER GERVAIS LLP

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT363916 B	19810910	LSGT	+	granted / extensions (spc, cpc, pte)	
AT363916 B	19910715	LSAS	EIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT363916 B	19971115	LSLE	-ELJ	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT363916 B	19980811	PEXP		Calculated Patent Term Expiry	
AT587678 A	19810215	LSPB	+	published / reissued	
AU197724558 A1	19781102	LSPB	+	published / reissued	
AU508704 B2	19800327	LSGT	+	granted / extensions (spc, cpc, pte)	
BE854077 A	19770816	LSPB	+	published / reissued	
BE854077 A	19841031	LSLE	-RE	PATENT LAPSED	PARTYTYPE : OWNER OWNER : J.N. EBERLE & CIE G.M.B.H. EFFECTIVE DATE : 19840428
BE869672 A	19781201	LSPB	+	published / reissued	
BE869672 A	19980228	LSLE	-RE	PATENT LAPSED	PARTYTYPE : OWNER OWNER : CARL MUNTERS A.B. EFFECTIVE DATE : 19970831
BR7702673 A	19780117	LSPB	+	published / reissued	
BR7805482 A	19790410	LSPB	+	published / reissued	
CH612881 A	19790831	LSGT	+	granted / extensions (spc, cpc, pte)	
CH612881 A	19850930	LSLE	-PL	PATENT CEASED	
CH612881 A	19970125	PEXP		Calculated Patent Term Expiry	
DD130024 C	19780301	LSGT	+	granted / extensions (spc, cpc, pte)	
DD130024 C	19950309	PEXP		Calculated Patent Term Expiry	
DD138278 C	19791024	LSGT	+	granted / extensions (spc, cpc, pte)	
DD138278 C	19960821	PEXP		Calculated Patent Term Expiry	
DE2618714 A1	19771117	LSPB	+	published / reissued	
DE2618714 A1	19781102	LSES	+OD	REQUEST FOR EXAMINATION	
DE2618714 B2	19810430	LSPB	+	published / reissued	
DE2618714 B2	19820429	LSAS	8227	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	TEXT : J.N. EBERLE FEDERNFABRIK GMBH, 8930 SCHWABMUENCHEN, DE
DE2618714 C3	19820616	LSGT	+	granted / extensions (spc, cpc, pte)	
DE2618714 C3	19820616	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)	
DE2618714 C3	19860213	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
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DE2622176 A1	19820429	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	PARTYTYPE : OWNER OWNER : J.N. EBERLE FEDERNFABRIK GMBH, 8930 SCHWABMUENCHEN
DE2622176 C2	19830105	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE2635770 A1	19850314	LSLE	-8136	DISPOSAL/NON-PAYMENT OF THE FEE FOR PUBLICATION/GRANT	
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DE2644315 A1	19780406	LSPB	+	published / reissued	
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DE2644315 A1	19860327	LSRE	+8178	SUSPENSION CANCELLED	
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DE2738257 B1	19781109	LSPB	+	published / reissued	
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DE7619535 U1	19761007	LSGT	+	granted / extensions (spc, cpc, pte)	
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FR2349342 B1	19970425	PEXP		Calculated Patent Term Expiry	
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SE7710909 A	19780402	LSPB	+	published / reissued	
SE7808957 A	19790226	LSPB	+	published / reissued	
US4084764 A	19780418	LSGT	+	granted / extensions (spc, cpc, pte)	
US4084764 A	19820421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : J.N. EBERLE FEDERNAFABRIK GMBH, HOCHFELDSTRASSE 6- OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:FA. J.N. EBERLE & CIE, G.M.B.H, A CORP. OF GERMANY; REEL/FRAME:003979/0710 EFFECTIVE DATE : 19820203
US4120491 A	19781017	LSGT	+	granted / extensions (spc, cpc, pte)	
US4120491 A	19781017	LSGT	PAT1	Patented Case	
US4144714 A	19790320	LSGT	+	granted / extensions (spc, cpc, pte)	
US4144714 A	19790320	LSGT	PAT1	Patented Case	
US4240814 A	19801223	LSGT	+	granted / extensions (spc, cpc, pte)	
US4240814 A	19800927	LSGT	PAT1	Patented Case	
US4240814 A	19900723	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AB CARL MUNTERS,, SWEDEN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:DR.-ING. ULRICH REGEHR; REEL/FRAME:005379/0898 EFFECTIVE DATE : 19900208
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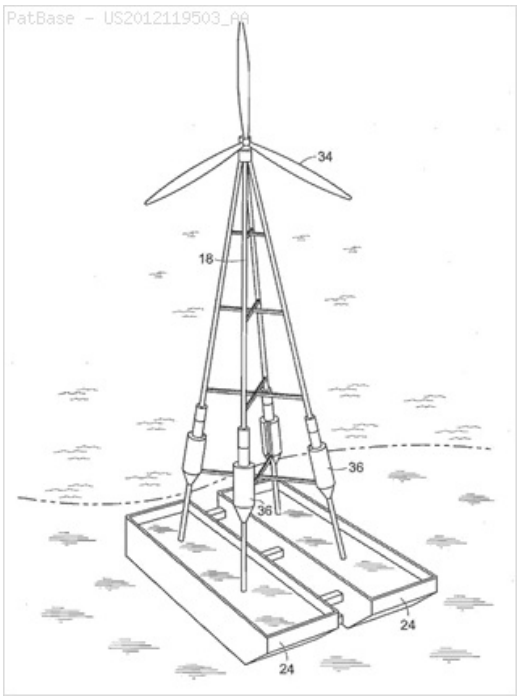
ZA7804591 A	19940813	PEXP	Calculated Patent Term Expiry

50) Family number: 51105611 (US2012119503A)

Title: SUBMERGED ENERGY STORAGE

Abstract: A submerged energy storage system and method incorporates a pump having a helix screw coupled with a storage tank on the sea floor and motive means, such as wind driven impellers or wave motion produced by sliding buoys or driving the screw of the pump.

Classifications:
International (IPC 8-9): F03B13/24 F03D9/02 (Advanced/Invention)
CPC: Y02E10/38 Y02E10/72 Y02E60/17 F03B13/14 F03B13/1845 F05B2240/97 Y10T137/86051 Y02P80/158 F03D9/28 F03B13/20 F03D9/17 F03D13/25
European: F03B13/14 F03B13/18D F03B13/20 F03D9/00B R05B240/97
US: 137/565.18 137/565.180S 290/55 290/55P



Family:

Publication number	Publication date	Application number	Application date
US2012119503 AA	20120517	US20110065884	20110331

Priority:
US20100341585P 20100401 US20110065884 20110331

Probable Assignee: VAN BREEMS MARTINUS
Assignee(s): (std)**:** VAN BREEMS MARTINUS
Inventor(s): (std)**:** VAN BREEMS MARTINUS

Legal status (INPADOC)

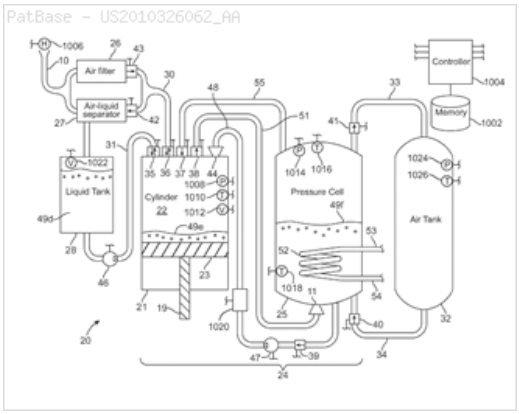
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Patent	Date recorded	Event group	Code	Event	Details
US2012119503 AA	20120517	LSPB	+	published / reissued	
US2012119503 AA	20150427	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

51) Family number: 47930612 (US2010326062A)

Title: COMPRESSED AIR ENERGY STORAGE SYSTEM UTILIZING TWO-PHASE FLOW TO FACILITATE HEAT EXCHANGE

Abstract: A compressed-air energy storage system according to embodiments of the present invention comprises a reversible mechanism to compress and expand air, one or more compressed air storage tanks, a control system, one or more heat exchangers, and, in certain embodiments of the invention, a motor-**generator**. The reversible air compressor-expander uses mechanical power to compress air (when it is acting as a compressor) and converts the energy stored in compressed air to mechanical power (when it is acting as an expander). In certain embodiments, the compressor-expander comprises one or more stages, each stage consisting of pressure vessel (the "pressure cell") partially filled with water or other liquid. In some embodiments, the pressure vessel communicates with one or more cylinder devices to exchange air and liquid with the cylinder chamber(s) thereof. Suitable valving allows air to enter and leave the pressure cell and cylinder device, if present, under electronic control.



Classifications:

International (IPC 8-9): B05B1/00 B05B1/02 F01B1/00 F01B15/02 F01B17/02 F01B21/02 F01B21/04 F01B23/08 F01B23/10 F01B25/02 F01B25/10 F01B29/04 F01B29/10 F01B31/00 F01B9/02 F01C1/00 F01C1/02 F01C1/16 F01C1/34 F01C13/00 F01D15/10 F01K13/02 F01K21/02 F01K21/04 F01K23/10 F01K25/00 F01K25/06 F01K25/10 F01K27/00 F01K3/02 F02C1/02 F02C1/04 F02C6/16 F02D25/00 F02G1/04 F02G1/043 F02G1/05 F03B11/00 F03C1/00 F03D11/00 F03D11/02 F03D11/04 F03D5/00 F03D9/00 F03D9/02 F03G7/00 F04B17/00 F04B17/02 F04B35/02 F04B39/00 F04B39/06 F04B39/12 F04B41/02 F04B41/04 F04B49/00 F04B49/22 F04B9/123 F04B9/127 F04D29/58 F15B1/00 F15B1/02 F15B1/027 F15B1/08 F15B1/26 F15B11/06 F15B11/08 F15B13/00 F15B13/04 F15B13/042 F15B13/044 F15B13/16 F15B15/00 F15B15/02 F15B15/20 F15B21/04 F15B21/14 F16D25/00 F16D31/02 F16L3/00 F16L53/00 F17C13/02 F17C13/04 F17C5/00 F17D1/02 F24H3/00 F24J3/08 F25B13/00 F25B27/00 F25B9/00 G05B15/02 G05D7/00 G05F3/06 H02J1/00 H02J1/10 H02J15/00 H02K7/18 H02P9/04 (Advanced/Invention); F03C1/00 F15B1/02 F28D20/00 H02J1/10 (Advanced/Non-invention)

CPC: F15B13/00 F05B2260/406 Y02E10/728 F17D1/02 F04B41/02 F15B1/02 F02G1/05 F01C13/00 F01B17/022 H02J15/006 F01K25/10 Y02E50/12 Y02T50/678 F15B15/20 F15B15/02 F15B2015/208 Y02B10/30 F15B1/265 F15B1/00 H02K7/1815 F01B15/02 F01B29/10 F05B2260/40311 Y02E10/725 Y02E10/726 Y02E60/17 Y10T137/0318 Y10T137/0379 Y10T137/6579 F03G2007/00 F01K13/02 F01K25/06 F28D20/00 F15B1/024 Y02E60/74 Y10T137/6416 Y10T137/8593 Y10T307/50 Y10T307/735 F04B17/02 F04B49/22 G05B15/02 F01B17/02 F03D15/00 F17C5/002 F15B1/08 F15B11/08 F15B13/042 F15B13/044 F04B39/0005 F04B39/12 F17C13/026 F17C13/04 F15B2211/50554 F15B2211/20538 H02P9/04 F03D9/001 F03D9/002 F03D9/25 Y10T137/6851 F03D9/28 Y02B10/70 F04B39/06 F16H3/72 F01K7/00 F01K13/00 F01K25/04 F03D15/10 F03D13/20 F03D9/17 F01K27/00 F03G7/00 F01B9/02 F01B23/10 F01D15/10 F02C1/02 F02C6/16 Y02E60/15 Y02E10/722 Y02T50/672

European: F01K13/02 F01K25/06 F01K25/10 F01K27/00 F03D11/04 F03D9/00B F03D9/02D F04B17/02 H02J15/00D R05B260/40311 R05B260/406 Y02B10/30 Y02E10/72 Y02E10/72J Y02E10/72N Y02E50/12 Y02E60/15 Y02E60/17 Y02E70/30

US: 1/1 137/1 137/12 137/12S 137/334 137/340 137/343 137/343S 137/561R 165/45 165/48.1 239/518 239/589 239/589S 290/1.00RP 290/1R 290/43 290/44 290/4D 290/52 290/52P 290/55 290/55S 290/7 290/7P 307/151 307/43 307/87 415/124.1 417/228 417/237 417/26 417/266 417/280 417/280P 417/321 417/321S 417/330 417/330S 417/334 417/334S 417/398 417/398P 417/438 417/438P 417/438S 417/53 417/53P 417/53S 60/325 60/325P 60/327 60/327P 60/329 60/329P 60/370 60/371 60/375 60/375S 60/398 60/398P 60/407 60/408 60/408P 60/408S 60/412 60/413 60/413P 60/413S 60/415 60/415P 60/415S 60/416 60/416S 60/417 60/418 60/418S 60/456 60/509 60/517 60/517P 60/517S 60/522 60/525 60/525P 60/650 60/650P 60/659 60/659P 60/659S 62/121 62/121S 700/282 91/418 91/418S 91/462 91/462P 91/5 91/5P 92/144 92/144P

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Priority:

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Probable Assignee: LIGHTSAIL ENERGY INC

Assignee(s): (std): BERLIN EDWIN P JR ; BERLIN JR EDWIN P ; LIGHTSAIL ENERGY INC ; FONG DANIELLE A ; CRANE STEPHEN E ; HOU YONGXI ; BOWERS TODD ; LIGHSAIL ENERGY INC ; MAHALATKAR KARTIKEYA ; POURMOUSA ABKENAR AMIRHOSSEIN ; LIGHTSALE ENERGY INC ; STAHLKOPF KARL E ; ABKENAR AMIRHOSSEIN POURMOUSA

Assignee(s): BERLIN EDWIN P ; SILICON VALLEY BANK ; GIBRALTAR BUSINESS CAPITAL LLC ; LIGHTSAIL ENERGY INC OAKLAND

Inventor(s): (std): BERLIN JR EDWIN P ; CRANE STEPHEN E ; FONG DANIELLE A ; KARTIKEYA MAHALATKAR ; TODD BOWERS ; YONGXI HOU ; AMIRHOSSEIN POURMOUSA ABKENAR ; MAHALATKAR KARTIKEYA ; POURMOUSA ABKENAR AMIRHOSSEIN ; HOU YONGXI ; BOWERS TODD ; FONG DANIELLE ; ABKENAR AMIRHOSSEIN POURMOUSA ; STAHLKOPF KARL E ; BOWERS TEDD ; BERLIN EDWIN P JR ; BERLIN EDWIN P ; POURMOUSA ABKENAR AMIR HOSSEIN ; DANIELLE A FONG ; EDWIN P BERLIN JR ; STEPHEN E CRANE ; STAHLKOFF KARL E ; POURMOUSA ABKENNAR AMIRHOSSEIN

Agent(s): MBM INTELLECTUAL PROPERTY LAW LLP; ZENZ PATENTANWAELTE PARTNERSCHAFT MBB; NOBLE NICHOLAS; AMPACC LAW GROUP PLLC; CHO STEVE Y; CHO STEVE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2749975 AA	20110120	LSPB	+	published / reissued	
CA2749975 AA	20150709	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150616
CA2749975 AA	20190116	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20181205
CA2798756 AA	20121106	LSPB	+	published / reissued	
CA2798756 AA	20161004	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160928
CA2798756 AA	20190304	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20190121

CN102365458 A	20120229	LSPB	+	published / reissued	
CN102365458 A	20120229	LSPB	+C06	PUBLICATION	
CN102365458 A	20120229	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN102365458 B	20140903	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102365458 B	20140903	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102365458 B	20140903	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN102365458 B	20190611	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT : 专利权的终止 (TERMINATION OF PATENT RIGHT) EFFECTIVE DATE : 20180628
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DE112010002759 T5	20110909	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
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EP2449259 A2	20120509	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110606
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EP2449259 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160622 YEAR OF FEE PAYMENT : 7
EP2449259 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160622 YEAR OF FEE PAYMENT : 7
EP2449259 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160516 YEAR OF FEE PAYMENT : 7
EP2449259 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160610 YEAR OF FEE PAYMENT : 7
EP2449259 A4	20141022	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140923
EP2449259 A4	20150805	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150707
EP2449259 A4	20151230	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20151120
EP2449259 B1	20160113	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2449259 B1	20160113	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2449259 B1	20160115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2449259 B1	20160210	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2449259 B1	20160215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 770708 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160215
EP2449259 B1	20160303	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010030221 COUNTRY OF REF DOCUMENT : DE
EP2449259 B1	20160510	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2449259 B1	20160516	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2449259 B1	20160615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 770708 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160113
EP2449259 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160414
EP2449259 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160513
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160513
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				OFFICE TO EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161014	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010030221 COUNTRY OF REF DOCUMENT : DE
EP2449259 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20161221	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20161014
EP2449259 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20170131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2449259 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2449259 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20170322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2449259 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160630
EP2449259 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160630
EP2449259 B1	20170511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2449259 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160628
EP2449259 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170511 YEAR OF FEE PAYMENT : 8
EP2449259 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 8
EP2449259 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170614 YEAR OF FEE PAYMENT : 8
EP2449259 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170621 YEAR OF FEE PAYMENT : 8
EP2449259 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE :

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20100628
EP2449259 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160628
EP2449259 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160630
EP2449259 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160113
EP2449259 B1	20190101	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602010030221 COUNTRY OF REF DOCUMENT : DE
EP2449259 B1	20190227	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20180628
EP2449259 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180701
EP2449259 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180628
EP2449259 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180630
EP2449259 B1	20190430	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190101
EP2449259 B1	20300628	PEXP		Calculated Patent Term Expiry	
EP2665895 A2	20131127	LSPB	+	published / reissued	
EP2665895 A2	20131127	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130219
EP2665895 A4	20180411	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20180314
EP2665895 A4	20190116	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20180801
IN01544MN2011 A	20120727	LSPB	+	published / reissued	
IN02544MN2012 A	20140620	LSPB	+	published / reissued	
JP2012523514 T2	20121004	LSPB	+	published / reissued	
JP2012523514 T2	20130227	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130226
JP2012523514 T2	20131030	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20131029
JP2012523514 T2	20131220	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131219
JP2012523514 T2	20140324	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012523514 T2	20140402	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140401
JP2012523514 T2	20140501	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140425
JP2012523514 T2	20140509	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5537572 COUNTRY OF REF DOCUMENT : JP
JP2014185640 A2	20141002	LSPB	+	published / reissued	
JP2014185640 A2	20150325	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150324
JP2014185640 A2	20150520	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150520
JP2014185640 A2	20150609	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014185640 A2	20150617	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150616
JP2014185640 A2	20150723	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150714
JP2014185640 A2	20150724	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5781192

					COUNTRY OF REF DOCUMENT : JP
JP2014509359 T2	20140417	LSPB	+	published / reissued	
JP2014509359 T2	20141106	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20141105
JP2014509359 T2	20160210	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160209
JP2014509359 T2	20160427	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160427
JP2014509359 T2	20160531	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160531
JP2014509359 T2	20170110	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20170110
JP2014509359 T2	20170315	LSRV	-R155	NOTIFICATION BEFORE DISPOSITION OF DECLINING OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: R155
JP2014509359 T2	20170406	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170330
JP2014509359 T2	20170414	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6124349 COUNTRY OF REF DOCUMENT : JP
JP2016008613 A2	20160118	LSPB	+	published / reissued	
JP2016008613 A2	20160531	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160531
JP2016008613 A2	20160825	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160825
JP2016008613 A2	20161108	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20161108
JP5537572 B2	20140702	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5537572 B2	20140403	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5537572 B2	20140428	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5537572 B2	20140509	LSGT	+R150	特許証 (Patent certificate)	
JP5537572 B2	20170427	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5537572 B2	20170509	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5537572 B2	20180509	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP5537572 B2	20300628	PEXP		Calculated Patent Term Expiry	
JP5781192 B2	20150916	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5781192 B2	20150618	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5781192 B2	20150721	LSFE	R100	特許料納付書 (Patent fee payment form)	

JP5781192 B2	20150724	LSGT	+R150	特許証 (Patent certificate)	
JP5781192 B2	20180724	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP5781192 B2	20340425	PEXP		Calculated Patent Term Expiry	
JP6124349 B2	20170510	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6124349 B2	20170112	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6124349 B2	20170315	LSRV	R155	出願却下処分前通知 (Notice before dismissal of application)	
JP6124349 B2	20170404	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6124349 B2	20170414	LSGT	+R150	特許証 (Patent certificate)	
JP6124349 B2	20320119	PEXP		Calculated Patent Term Expiry	
KR101533371 B1	20150702	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101533371 B1	20180627	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101533371 B1	20300628	PEXP		Calculated Patent Term Expiry	
KR101533372 B1	20150703	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101533372 B1	20150113	LSES	A201	REQUEST FOR EXAMINATION	
KR101533372 B1	20180627	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101533372 B1	20300628	PEXP		Calculated Patent Term Expiry	
KR20120112363 A	20121011	LSPB	+	published / reissued	
KR20120112363 A	20131121	LSES	A201	REQUEST FOR EXAMINATION	
KR20120112363 A	20141113	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120112363 A	20150401	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20120112363 A	20150626	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20140015334 A	20140206	LSPB	+	published / reissued	
KR20140015334 A	20170220	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
KR20150023737 A	20150305	LSPB	+	published / reissued	
KR20150023737 A	20150401	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20150023737 A	20150626	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
US2010326062 AA	20101230	LSPB	+	published / reissued	
US2010326062 AA	20110928	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010326064 AA	20101230	LSPB	+	published / reissued	
US2010326064 AA	20110928	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010326066 AA	20101230	LSPB	+	published /	

				reissued	
US2010326066 AA	20111214	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010326068 AA	20101230	LSPB	+	published / reissued	
US2010326068 AA	20111109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010326069 AA	20101230	LSPB	+	published / reissued	
US2010326069 AA	20120314	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010326075 AA	20101230	LSPB	+	published / reissued	
US2010326075 AA	20120516	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010329891 AA	20101230	LSPB	+	published / reissued	
US2010329891 AA	20140716	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010329903 AA	20101230	LSPB	+	published / reissued	
US2010329903 AA	20120523	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010329909 AA	20101230	LSPB	+	published / reissued	
US2010329909 AA	20120502	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011023488 AA	20110203	LSPB	+	published / reissued	
US2011023488 AA	20120530	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011023488 AA	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0696 EFFECTIVE DATE : 20120613
US2011023977 AA	20110203	LSPB	+	published / reissued	
US2011023977 AA	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0263 EFFECTIVE DATE : 20120613
US2011023977 AA	20120620	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011030359 AA	20110210	LSPB	+	published / reissued	
US2011030359 AA	20111109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011030552 AA	20110210	LSPB	+	published / reissued	
US2011030552 AA	20111102	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011115223 AA	20110519	LSPB	+	published / reissued	
US2011115223 AA	20130417	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011233934 AA	20110929	LSPB	+	published / reissued	
US2011233934 AA	20120801	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2011314800 AA	20111229	LSPB	+	published / reissued	
US2011314800 AA	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0503 EFFECTIVE DATE : 20120613
US2011314800 AA	20120725	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011314804 AA	20111229	LSPB	+	published / reissued	
US2011314804 AA	20120530	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012017580 AA	20120126	LSPB	+	published / reissued	
US2012019009 AA	20120126	LSPB	+	published / reissued	
US2012019009 AA	20120516	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012023919 AA	20120202	LSPB	+	published / reissued	
US2012023919 AA	20120620	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012042772 AA	20120223	LSPB	+	published / reissued	
US2012042772 AA	20121222	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012055147 AA	20120308	LSPB	+	published / reissued	
US2012055147 AA	20121229	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012057996 AA	20120308	LSPB	+	published / reissued	
US2012057996 AA	20120502	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012067036 AA	20120322	LSPB	+	published / reissued	
US2012067036 AA	20130213	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012090314 AA	20120419	LSPB	+	published / reissued	
US2012090314 AA	20130220	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012118137 AA	20120517	LSPB	+	published / reissued	
US2012118137 AA	20130807	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012119514 AA	20120517	LSPB	+	published / reissued	
US2012119514 AA	20121010	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012255292 AA	20121011	LSPB	+	published / reissued	
US2012255292 AA	20130605	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012260645 AA	20121018	LSPB	+	published / reissued	
US2012260645 AA	20130605	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012269651 AA	20121025	LSPB	+	published / reissued	
US2012269651 AA	20140604	LSGT	STCF	INFORMATION ON	TEXT : PATENTED CASE

				STATUS: PATENT GRANT	
US2012286522 AA	20121115	LSPB	+	published / reissued	
US2012286522 AA	20130508	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012291989 AA	20121122	LSPB	+	published / reissued	
US2012291989 AA	20131002	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013001958 AA	20130103	LSPB	+	published / reissued	
US2013001958 AA	20140423	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013009408 AA	20130110	LSPB	+	published / reissued	
US2013009408 AA	20150415	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013047597 AA	20130228	LSPB	+	published / reissued	
US2013047597 AA	20130807	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013104533 AA	20130502	LSPB	+	published / reissued	
US2013108480 AA	20130502	LSPB	+	published / reissued	
US2013111895 AA	20130509	LSPB	+	published / reissued	
US2013111895 AA	20140604	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013126014 AA	20130523	LSPB	+	published / reissued	
US2013126014 AA	20130724	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013168961 AA	20130704	LSPB	+	published / reissued	
US2013276440 AA	20131024	LSPB	+	published / reissued	
US2013276440 AA	20140702	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; SIGNING DATES FROM 20130612 TO 20130629; REEL/FRAME:033234/0057
US2013276440 AA	20140730	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013291529 AA	20131107	LSPB	+	published / reissued	
US2013291960 AA	20131107	LSPB	+	published / reissued	
US2013291960 AA	20160629	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013294943 AA	20131107	LSPB	+	published / reissued	
US2013294943 AA	20160615	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013307269 AA	20131121	LSPB	+	published / reissued	
US2013307269 AA	20160824	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013333373 AA	20131219	LSPB	+	published / reissued	

US2013333373 AA	20140618	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014026549 AA	20140130	LSPB	+	published / reissued	
US2014026549 AA	20140910	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015033724 AA	20150205	LSPB	+	published / reissued	
US2015033724 AA	20170310	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015033724 AA	20170630	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2015033724 AA	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US2015054291 AA	20150226	LSPB	+	published / reissued	
US2015054291 AA	20160615	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015184641 AA	20150702	LSPB	+	published / reissued	
US2015184641 AA	20170208	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016273529 AA	20160922	LSPB	+	published / reissued	
US2016273529 AA	20170308	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016273529 AA	20170628	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2016356421 AA	20161208	LSPB	+	published / reissued	
US2016356421 AA	20170524	LSES	NFA1	Non Final Action Mailed	
US2016356421 AA	20171129	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US8037677 BB	20111018	LSGT	+	granted / extensions (spc, cpc, pte)	
US8037677 BB	20100205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:023911/0687 EFFECTIVE DATE : 20100127
US8037677 BB	20110928	LSGT	PAT1	Patented Case	
US8037677 BB	20150401	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8037677 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8037677 BB	20190610	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY

US8037677 BB	20191125	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8037677 BB	20191125	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8037677 BB	20191125	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8037677 BB	20191217	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20191018
US8037677 BB	20300503	PEXP		Calculated Patent Term Expiry (PTA 87 days)	
US8037679 BB	20111018	LSGT	+	granted / extensions (spc, cpc, pte)	
US8037679 BB	20100205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:023911/0733 EFFECTIVE DATE : 20100127
US8037679 BB	20110928	LSGT	PAT1	Patented Case	
US8037679 BB	20150401	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8037679 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8037679 BB	20190610	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8037679 BB	20191125	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8037679 BB	20191125	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8037679 BB	20191125	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8037679 BB	20191217	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20191018
US8037679 BB	20300521	PEXP		Calculated Patent Term Expiry (PTA 105 days)	
US8061132 BB	20111122	LSGT	+	granted / extensions (spc, cpc, pte)	
US8061132 BB	20100830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.;

					BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:024909/0019 EFFECTIVE DATE : 20100624
US8061132 BB	20111102	LSGT	PAT1	Patented Case	
US8061132 BB	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0352 EFFECTIVE DATE : 20120613
US8061132 BB	20150506	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8061132 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8061132 BB	20190715	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8061132 BB	20191230	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8061132 BB	20191230	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8061132 BB	20191230	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8061132 BB	20300825	PEXP		Calculated Patent Term Expiry	
US8065873 BB	20111129	LSGT	+	granted / extensions (spc, cpc, pte)	
US8065873 BB	20100205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:023911/0731 EFFECTIVE DATE : 20100127
US8065873 BB	20111109	LSGT	PAT1	Patented Case	
US8065873 BB	20150520	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8065873 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8065873 BB	20190722	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8065873 BB	20200106	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY

US8065873 BB	20200106	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8065873 BB	20200106	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8065873 BB	20300528	PEXP		Calculated Patent Term Expiry (PTA 112 days)	
US8065874 BB	20111129	LSGT	+	granted / extensions (spc, cpc, pte)	
US8065874 BB	20100830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:024908/0894 EFFECTIVE DATE : 20100624
US8065874 BB	20111109	LSGT	PAT1	Patented Case	
US8065874 BB	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0316 EFFECTIVE DATE : 20120613
US8065874 BB	20150520	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8065874 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8065874 BB	20190722	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8065874 BB	20200106	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8065874 BB	20200106	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8065874 BB	20200106	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8065874 BB	20300825	PEXP		Calculated Patent Term Expiry	
US8087241 BB	20120103	LSGT	+	granted / extensions (spc, cpc, pte)	
US8087241 BB	20100830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:024913/0356 EFFECTIVE DATE : 20100127
US8087241 BB	20111214	LSGT	PAT1	Patented Case	
US8087241 BB	20150617	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US8087241 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8087241 BB	20190826	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8087241 BB	20300825	PEXP		Calculated Patent Term Expiry	
US8146354 BB	20120403	LSGT	+	granted / extensions (spc, cpc, pte)	
US8146354 BB	20100128	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:023867/0963 EFFECTIVE DATE : 20100127
US8146354 BB	20120314	LSGT	PAT1	Patented Case	
US8146354 BB	20150916	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8146354 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8146354 BB	20191125	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8146354 BB	20300423	PEXP		Calculated Patent Term Expiry (PTA 85 days)	
US8181456 BB	20120522	LSGT	+	granted / extensions (spc, cpc, pte)	
US8181456 BB	20120502	LSGT	PAT1	Patented Case	
US8181456 BB	20151104	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8181456 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8181456 BB	20200113	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8181456 BB	20311110	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8182240 BB	20120522	LSGT	+	granted / extensions (spc, cpc, pte)	
US8182240 BB	20100205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.;

					REEL/FRAME:023911/0735 EFFECTIVE DATE : 20100127
US8182240 BB	20120502	LSGT	PAT1	Patented Case	
US8182240 BB	20151104	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8182240 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8182240 BB	20200113	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8182240 BB	20300622	PEXP		Calculated Patent Term Expiry (PTA 137 days)	
US8191360 BB	20120605	LSGT	+	granted / extensions (spc, cpc, pte)	
US8191360 BB	20110825	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:026803/0346 EFFECTIVE DATE : 20100624
US8191360 BB	20120516	LSGT	PAT1	Patented Case	
US8191360 BB	20151119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8191360 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8191360 BB	20310825	PEXP		Calculated Patent Term Expiry	
US8191361 BB	20120605	LSGT	+	granted / extensions (spc, cpc, pte)	
US8191361 BB	20100830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:024909/0180 EFFECTIVE DATE : 20100624
US8191361 BB	20120516	LSGT	PAT1	Patented Case	
US8191361 BB	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0370 EFFECTIVE DATE : 20120613
US8191361 BB	20151119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8191361 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719

US8191361 BB	20301209	PEXP		Calculated Patent Term Expiry (PTA 106 days and a terminal disclaimer has been filed)	
US8196395 BB	20120612	LSGT	+	granted / extensions (spc, cpc, pte)	
US8196395 BB	20100625	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:024597/0881 EFFECTIVE DATE : 20100624
US8196395 BB	20120523	LSGT	PAT1	Patented Case	
US8196395 BB	20120613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:STAHLKOPF, KARL; REEL/FRAME:028370/0197 EFFECTIVE DATE : 20120613
US8196395 BB	20151125	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8196395 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8196395 BB	20300925	PEXP		Calculated Patent Term Expiry (PTA 92 days)	
US8196398 BB	20120612	LSGT	+	granted / extensions (spc, cpc, pte)	
US8196398 BB	20110902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:026855/0642 EFFECTIVE DATE : 20100127
US8196398 BB	20120523	LSGT	PAT1	Patented Case	
US8196398 BB	20160612	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8196398 BB	20160711	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8196398 BB	20160711	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8196398 BB	20160802	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160612
US8196398 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8196398 BB	20310831	PEXP		Calculated Patent Term Expiry	
US8201402 BB	20120619	LSGT	+	granted / extensions (spc,	

				cpc, pte)	
US8201402 BB	20100830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:024909/0297 EFFECTIVE DATE : 20100624
US8201402 BB	20120530	LSGT	PAT1	Patented Case	
US8201402 BB	20151202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8201402 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8201402 BB	20301003	PEXP		Calculated Patent Term Expiry (PTA 39 days)	
US8201403 BB	20120619	LSGT	+	granted / extensions (spc, cpc, pte)	
US8201403 BB	20110720	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:026627/0232 EFFECTIVE DATE : 20100127
US8201403 BB	20120530	LSGT	PAT1	Patented Case	
US8201403 BB	20151202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8201403 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8201403 BB	20310720	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8215105 BB	20120710	LSGT	+	granted / extensions (spc, cpc, pte)	
US8215105 BB	20100830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:024908/0715 EFFECTIVE DATE : 20100624
US8215105 BB	20120620	LSGT	PAT1	Patented Case	
US8215105 BB	20151223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8215105 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8215105 BB	20301021	PEXP		Calculated Patent Term Expiry (PTA 57 days)	

US8215106 BB	20120710	LSGT	+	granted / extensions (spc, cpc, pte)	
US8215106 BB	20110830	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:026832/0251 EFFECTIVE DATE : 20100127
US8215106 BB	20120620	LSGT	PAT1	Patented Case	
US8215106 BB	20151223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8215106 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8215106 BB	20310830	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8240142 BB	20120814	LSGT	+	granted / extensions (spc, cpc, pte)	
US8240142 BB	20110802	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:026685/0978 EFFECTIVE DATE : 20100624
US8240142 BB	20120725	LSGT	PAT1	Patented Case	
US8240142 BB	20160127	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8240142 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8240142 BB	20310802	PEXP		Calculated Patent Term Expiry	
US8247915 BB	20120821	LSGT	+	granted / extensions (spc, cpc, pte)	
US8247915 BB	20100324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CRANE, STEPHEN E.; FONG, DANIELLE A.; BERLIN, EDWIN P., JR.; REEL/FRAME:024131/0954 EFFECTIVE DATE : 20100316
US8247915 BB	20120801	LSGT	PAT1	Patented Case	
US8247915 BB	20160203	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8247915 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8247915 BB	20301029	PEXP		Calculated Patent Term Expiry (PTA 219 days)	

US8299644 BB	20121030	LSGT	+	granted / extensions (spc, cpc, pte)	
US8299644 BB	20121010	LSGT	PAT1	Patented Case	
US8299644 BB	20160413	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8299644 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8299644 BB	20320123	PEXP		Calculated Patent Term Expiry	
US8353156 BB	20130115	LSGT	+	granted / extensions (spc, cpc, pte)	
US8353156 BB	20111029	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:027144/0132 EFFECTIVE DATE : 20100127
US8353156 BB	20121222	LSGT	PAT1	Patented Case	
US8353156 BB	20160630	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8353156 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8353156 BB	20311028	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8356478 BB	20130122	LSGT	+	granted / extensions (spc, cpc, pte)	
US8356478 BB	20121229	LSGT	PAT1	Patented Case	
US8356478 BB	20160707	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8356478 BB	20311110	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8387374 BB	20130305	LSGT	+	granted / extensions (spc, cpc, pte)	
US8387374 BB	20111010	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:027039/0085 EFFECTIVE DATE : 20100624
US8387374 BB	20130213	LSGT	PAT1	Patented Case	
US8387374 BB	20160825	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8387374 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8387374 BB	20311010	PEXP		Calculated Patent	

				Term Expiry (a terminal disclaimer has been filed)	
US8393148 BB	20130312	LSGT	+	granted / extensions (spc, cpc, pte)	
US8393148 BB	20111010	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; AND OTHERS; REEL/FRAME:027039/0387 EFFECTIVE DATE : 20100624
US8393148 BB	20130220	LSGT	PAT1	Patented Case	
US8393148 BB	20160901	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8393148 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8393148 BB	20311010	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8436489 BB	20130507	LSGT	+	granted / extensions (spc, cpc, pte)	
US8436489 BB	20110120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STAHLKOPF, KARL E.; FONG, DANIELLE A.; CRANE, STEPHEN E.; AND OTHERS; SIGNING DATES FROM 20110110 TO 20110111; REEL/FRAME:025672/0576
US8436489 BB	20130417	LSGT	PAT1	Patented Case	
US8436489 BB	20130604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STAHLKOPF, KARL; FONG, DANIELLE A.; CRANE, STEPHEN E.; AND OTHERS; SIGNING DATES FROM 20130507 TO 20130513; REEL/FRAME:030543/0400
US8436489 BB	20161027	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8436489 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8436489 BB	20310120	PEXP		Calculated Patent Term Expiry	
US8450884 BB	20130528	LSGT	+	granted / extensions (spc, cpc, pte)	
US8450884 BB	20130508	LSGT	PAT1	Patented Case	
US8450884 BB	20161117	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8450884 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624

					EFFECTIVE DATE : 20170719
US8450884 BB	20320720	PEXP		Calculated Patent Term Expiry	
US8468814 BB	20130625	LSGT	+	granted / extensions (spc, cpc, pte)	
US8468814 BB	20130605	LSGT	PAT1	Patented Case	
US8468814 BB	20161208	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8468814 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8468814 BB	20320222	PEXP		Calculated Patent Term Expiry	
US8468817 BB	20130625	LSGT	+	granted / extensions (spc, cpc, pte)	
US8468817 BB	20130605	LSGT	PAT1	Patented Case	
US8468817 BB	20161208	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8468817 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8468817 BB	20320129	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8482152 BA	20130709	LSGT	+	granted / extensions (spc, cpc, pte)	
US8482152 BA	20130619	LSGT	PAT1	Patented Case	
US8482152 BA	20130619	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8482152 BA	20161229	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8482152 BA	20330222	PEXP		Calculated Patent Term Expiry	
US8505288 BB	20130813	LSGT	+	granted / extensions (spc, cpc, pte)	
US8505288 BB	20130724	LSGT	PAT1	Patented Case	
US8505288 BB	20170202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8505288 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8505288 BB	20330121	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8516809 BB	20130827	LSGT	+	granted / extensions (spc, cpc, pte)	
US8516809 BB	20130807	LSGT	PAT1	Patented Case	
US8516809 BB	20170216	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8516809 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY

					INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8516809 BB	20321025	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8516810 BB	20130827	LSGT	+	granted / extensions (spc, cpc, pte)	
US8516810 BB	20130807	LSGT	PAT1	Patented Case	
US8516810 BB	20170216	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8516810 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8516810 BB	20320210	PEXP		Calculated Patent Term Expiry (PTA 21 days and a terminal disclaimer has been filed)	
US8561399 BB	20131022	LSGT	+	granted / extensions (spc, cpc, pte)	
US8561399 BB	20131002	LSGT	PAT1	Patented Case	
US8561399 BB	20170406	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8561399 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8561399 BB	20320727	PEXP		Calculated Patent Term Expiry	
US8723347 BB	20140513	LSGT	+	granted / extensions (spc, cpc, pte)	
US8723347 BB	20140423	LSGT	PAT1	Patented Case	
US8723347 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8723347 BB	20171107	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8723347 BB	20321021	PEXP		Calculated Patent Term Expiry (PTA 37 days)	
US8756928 BB	20140624	LSGT	+	granted / extensions (spc, cpc, pte)	
US8756928 BB	20140604	LSGT	PAT1	Patented Case	
US8756928 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8756928 BB	20171207	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8756928 BB	20321129	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	

US8756929 BB	20140624	LSGT	+	granted / extensions (spc, cpc, pte)	
US8756929 BB	20140604	LSGT	PAT1	Patented Case	
US8756929 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8756929 BB	20171207	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8756929 BB	20320809	PEXP		Calculated Patent Term Expiry (PTA 34 days)	
US8769943 BB	20140708	LSGT	+	granted / extensions (spc, cpc, pte)	
US8769943 BB	20140618	LSGT	PAT1	Patented Case	
US8769943 BB	20150727	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GIBRALTAR BUSINESS CAPITAL, LLC, ILLINOIS OLDPARTY : SECURITY INTEREST; ASSIGNOR:NEWS DISTRIBUTION NETWORK, INC.; REEL/FRAME:036183/0336 EFFECTIVE DATE : 20150720
US8769943 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8769943 BB	20171228	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8769943 BB	20330820	PEXP		Calculated Patent Term Expiry	
US8793989 BB	20140805	LSGT	+	granted / extensions (spc, cpc, pte)	
US8793989 BB	20100205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FONG, DANIELLE A.; CRANE, STEPHEN E.; BERLIN, EDWIN P., JR.; REEL/FRAME:023911/0712 EFFECTIVE DATE : 20100127
US8793989 BB	20140716	LSGT	PAT1	Patented Case	
US8793989 BB	20180125	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8793989 BB	20310207	PEXP		Calculated Patent Term Expiry (PTA 367 days)	
US8806861 BB	20140819	LSGT	+	granted / extensions (spc, cpc, pte)	
US8806861 BB	20140730	LSGT	PAT1	Patented Case	
US8806861 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8806861 BB	20180208	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8806861 BB	20330610	PEXP		Calculated Patent Term Expiry	

US8844277 BB	20140930	LSGT	+	granted / extensions (spc, cpc, pte)	
US8844277 BB	20140910	LSGT	PAT1	Patented Case	
US8844277 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8844277 BB	20180315	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8844277 BB	20330913	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8893486 BB	20141125	LSGT	+	granted / extensions (spc, cpc, pte)	
US8893486 BB	20141105	LSGT	PAT1	Patented Case	
US8893486 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8893486 BB	20180709	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8893486 BB	20181231	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8893486 BB	20181231	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8893486 BB	20181231	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8893486 BB	20190122	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181125
US8893486 BB	20330108	PEXP		Calculated Patent Term Expiry (PTA 75 days and a terminal disclaimer has been filed)	
US8893487 BB	20141125	LSGT	+	granted / extensions (spc, cpc, pte)	
US8893487 BB	20141105	LSGT	PAT1	Patented Case	
US8893487 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8893487 BB	20180709	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8893487 BB	20181231	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8893487 BB	20181231	LSLE	-PEX1	Patent Expired Due to NonPayment of	

				Maintenance Fees Under 37 CFR 1.362	
US8893487 BB	20181231	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8893487 BB	20190122	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181125
US8893487 BB	20330301	PEXP		Calculated Patent Term Expiry (PTA 92 days and a terminal disclaimer has been filed)	
US8912684 BB	20141216	LSGT	+	granted / extensions (spc, cpc, pte)	
US8912684 BB	20130604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STAHLKOPF, KARL E.; FONG, DANIELLE A.; CRANE, STEPHEN E.; AND OTHERS; SIGNING DATES FROM 20130507 TO 20130513; REEL/FRAME:030545/0544
US8912684 BB	20130605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LIGHTSAIL ENERGY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STAHLKOPF, KARL E.; FONG, DANIELLE A.; CRANE, STEPHEN E.; AND OTHERS; SIGNING DATES FROM 20130507 TO 20130513; REEL/FRAME:030549/0259
US8912684 BB	20141125	LSGT	PAT1	Patented Case	
US8912684 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US8912684 BB	20180730	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8912684 BB	20190121	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8912684 BB	20190121	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8912684 BB	20190121	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8912684 BB	20190212	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181216
US8912684 BB	20330503	PEXP		Calculated Patent Term Expiry	
US8919112 BA	20141230	LSGT	+	granted / extensions (spc, cpc, pte)	
US8919112 BA	20141210	LSGT	PAT1	Patented Case	
US8919112 BA	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624

					EFFECTIVE DATE : 20170719
US8919112 BA	20180813	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8919112 BA	20190204	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8919112 BA	20190204	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8919112 BA	20190204	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8919112 BA	20190226	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181230
US8919112 BA	20330814	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9024458 BB	20150505	LSGT	+	granted / extensions (spc, cpc, pte)	
US9024458 BB	20150415	LSGT	PAT1	Patented Case	
US9024458 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US9024458 BB	20181224	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US9024458 BB	20190610	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US9024458 BB	20190610	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US9024458 BB	20190610	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US9024458 BB	20190702	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20190505
US9024458 BB	20320914	PEXP		Calculated Patent Term Expiry	
US9382799 BB	20160705	LSGT	+	granted / extensions (spc, cpc, pte)	
US9382799 BB	20151019	LSES	NFA1	Non Final Action Mailed	
US9382799 BB	20160615	LSGT	PAT1	Patented Case	
US9382799 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719

US9382799 BB	20341105	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9385646 BB	20160705	LSGT	+	granted / extensions (spc, cpc, pte)	
US9385646 BB	20150930	LSES	NFA1	Non Final Action Mailed	
US9385646 BB	20160302	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9385646 BB	20160615	LSGT	PAT1	Patented Case	
US9385646 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US9385646 BB	20340703	PEXP		Calculated Patent Term Expiry (PTA 358 days and a terminal disclaimer has been filed)	
US9397600 BB	20160719	LSGT	+	granted / extensions (spc, cpc, pte)	
US9397600 BB	20151015	LSES	NFA1	Non Final Action Mailed	
US9397600 BB	20160629	LSGT	PAT1	Patented Case	
US9397600 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US9397600 BB	20340805	PEXP		Calculated Patent Term Expiry (PTA 391 days)	
US9444378 BB	20160913	LSGT	+	granted / extensions (spc, cpc, pte)	
US9444378 BB	20151218	LSES	NFA1	Non Final Action Mailed	
US9444378 BB	20160824	LSGT	PAT1	Patented Case	
US9444378 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US9444378 BB	20341111	PEXP		Calculated Patent Term Expiry (PTA 473 days)	
US9581140 BB	20170228	LSGT	+	granted / extensions (spc, cpc, pte)	
US9581140 BB	20170208	LSGT	PAT1	Patented Case	
US9581140 BB	20170728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILICON VALLEY BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:LIGHTSAIL ENERGY, INC.; REEL/FRAME:043634/0624 EFFECTIVE DATE : 20170719
US9581140 BB	20350311	PEXP		Calculated Patent Term Expiry	
WO11008321 A2	20110120	LSPB	+	published / reissued	

WO11008321 A3	20110723	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1544/MUMNP/2011 COUNTRY OF REF DOCUMENT : IN
WO11008321 A3	20111229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 112010002759 COUNTRY OF REF DOCUMENT : DE
WO11008321 A3	20111229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1120100027595 COUNTRY OF REF DOCUMENT : DE
WO11008321 A3	20120808	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 10800187 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO11008325 A2	20110120	LSPB	+	published / reissued	
WO11008325 A3	20120730	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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WO11008500 A2	20110120	LSPB	+	published / reissued	
WO11008500 A2	20100628	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080013689.1 COUNTRY OF REF DOCUMENT : CN
WO11008500 A3	20110606	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010800272 COUNTRY OF REF DOCUMENT : EP
WO11008500 A3	20110718	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2749975 COUNTRY OF REF DOCUMENT : CA
WO11008500 A3	20110905	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011553178 COUNTRY OF REF DOCUMENT : JP
WO11008500 A3	20120130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127002515 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO11008500 A3	20120820	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12100094 A2	20120726	LSPB	+	published / reissued	
WO12100094 A3	20121106	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2798756 COUNTRY OF REF DOCUMENT : CA
WO12100094 A3	20121108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2544/MUMNP/2012 COUNTRY OF REF DOCUMENT : IN
WO12100094 A3	20130219	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012737132 COUNTRY OF REF DOCUMENT : EP
WO12100094 A3	20130719	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013550589 COUNTRY OF REF DOCUMENT : JP

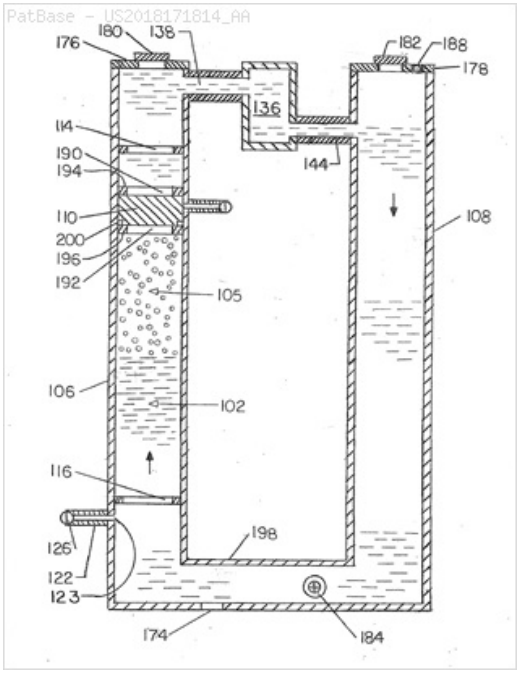
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WO12100094 A3	20130722	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12100094 A3	20130819	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137021802 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

52) Family number: 70161621 (US2018171814A)

Title: O. U. BUOYANCY HYDRO ELECTRIC LOOP PISTON

Abstract: This is a machine that contains a fluid loop that is utilized by using buoyancy and gravity to produce a fluid flow through a hydro turbine or other flow energy converter within the enclosed system. In one embodiment compressed gas is injected into a vessel at the underside of a piston to create a buoyant condition which forces the piston upward, thusly forcing the fluid above the piston through the hydro turbine. In another embodiment fluid or other matter fills a hollow piston at the top of the vessel and through the force of gravity descends, thusly forcing the fluid beneath the hollow piston downward and in turn upward through the adjoined vessel and then through the hydro turbine. In both referenced embodiments alternating ascent and descent cycles can be utilized within each adjoined vessel to cause fluid flow through the hydro turbine. Other embodiments are presented within as examples.

Classifications:
International (IPC 8-9): F01D13/02 F01D15/10 F03B17/00 H02K7/18 (Advanced/Invention)
CPC: F03B17/02 F05B2210/18 F05B2210/401 F03B17/005 Y02E10/20
US: 1/1 290/52



Family:

Publication number	Publication date	Application number	Application date
US2018171814 AA	20180621	US20160383337	20161219
US10267287 BB	20190423	US20160383337	20161219

Priority:
US20160383337 20161219

Probable Assignee: KILE EVERETT RAY
Assignee(s): (std): KILE EVERETT RAY
Inventor(s): (std): KILE EVERETT RAY

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US10267287 BB	20190423	LSGT	+	granted / extensions (spc, cpc, pte)	
US10267287 BB	20190403	LSGT	PAT1	Patented Case	
US10267287 BB	20370524	PEXP		Calculated Patent Term Expiry (PTA 156 days)	
US2018171814 AA	20180621	LSPB	+	published / reissued	
US2018171814 AA	20190111	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018171814 AA	20190124	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2018171814 AA	20190204	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018171814 AA	20190213	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2018171814 AA	20190224	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018171814 AA	20190305	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2018171814 AA	20190325	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018171814 AA	20190403	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED

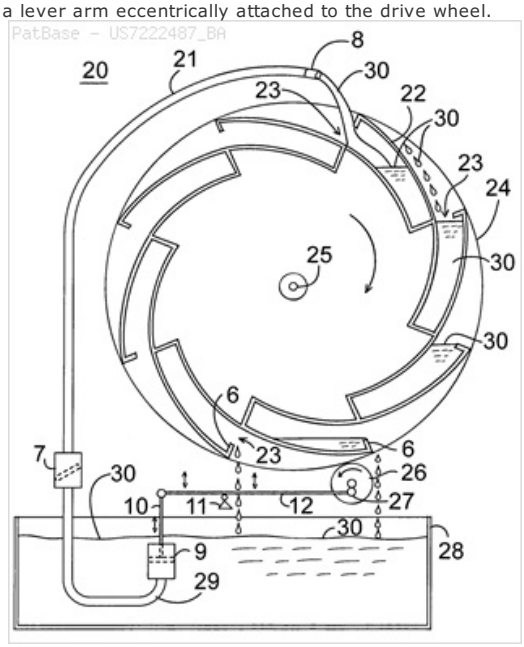
CASE

53) Family number: 34500635 (US7222487B)

Title: PORTABLE ELECTRICITY GENERATING GRAVITY DRIVEN WHEEL SYSTEM

Abstract: A wheel assembly with tangentially attached fluid receptacles around the perimeter rotates to power a gravity driven fluid electricity generating assembly. A plunger pump assembly with a drive wheel powered by the wheel assembly pumps a quantity of fluid to fill a fluid receptacle with each motion of a lever arm eccentrically attached to the drive wheel.

Classifications:
International (IPC 8-9): F03B7/00 (Advanced/Invention); H02P9/04 (Advanced/Non-invention); F03B7/00 (Core/Invention); H02P9/04 (Core/Non-invention)
CPC: F03B17/005 F03G7/10
European: F03B17/00B F03G7/10
US: 290/43 60/639



Family:

Publication number	Publication date	Application number	Application date
US7222487 BA	20070529	US20060372938	20060310

Priority:
US20060372938 20060310

Probable Assignee:	HINKLEY WILLIAM G
Assignee(s): (std):	HINKLEY WILLIAM G
Inventor(s): (std):	HINKLEY WILLIAM G
Agent(s):	DONALD W

Legal status (INPADOC)

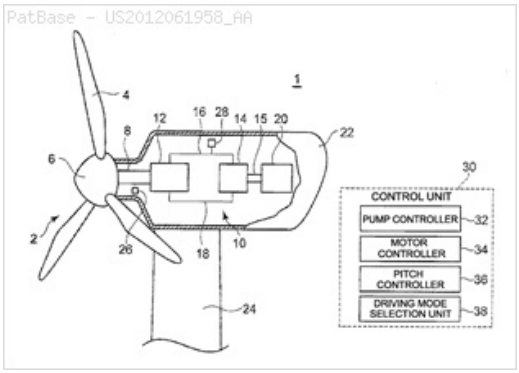
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Patent	Date recorded	Event group	Code	Event	Details
US7222487 BA	20070529	LSGT	+	granted / extensions (spc, cpc, pte)	
US7222487 BA	20110529	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7222487 BA	20110627	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7222487 BA	20110627	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7222487 BA	20110719	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110529
US7222487 BA	20260310	PEXP		Calculated Patent Term Expiry	

54) Family number: 46543656 (US2012061958A)

Title: WIND TURBINE **GENERATOR**

Abstract: An object of the present invention is to provide a wind turbine **generator** and an operation control method thereof, which takes measures against issues such as noise, bird strike and a friction heat of a bearing shaft. The wind turbine **generator** 1 comprises a hydraulic pump 12 of a variable displacement type which is rotated by the main shaft 8, a hydraulic motor 14 of a variable displacement type which is connected to the **generator** 20, and a high pressure oil line 16 and a low pressure oil line 18 which are arranged between the hydraulic pump 12 and the hydraulic motor 14. An operation mode selection unit 38 switches an operation mode between a normal operation mode and a low rotation speed operation mode. The low rotation speed operation mode has a rated rotation speed of the main shaft 8 lower than that of the normal operation mode, at least one of a rated displacement of the hydraulic pump 12 and a rated pressure of the high pressure oil line that are greater than that of the normal operation mode and a rated output of a **generator** 20 substantially same as that of the normal operation mode. The operation mode selection unit 38 selects the normal operation mode or the low rotation speed operation mode depending on environment conditions.



Classifications:

International (IPC 8-9): A62B35/04 B23P11/00 B23P15/00 B23P17/00 B23P19/04 B23P6/00 B66C23/18 F01D13/00 F01D5/08 F03B11/00 F03B11/06 F03B13/00 F03B13/12 F03B13/22 F03B13/26 F03B15/00 F03B17/06 F03B3/12 F03C1/053 F03C2/30 F03D1/00 F03D1/06 F03D11/00 F03D11/02 F03D11/04 F03D13/00 F03D13/10 F03D15/00 F03D17/00 F03D3/06 F03D7/00 F03D7/02 F03D7/04 F03D80/00 F03D80/70 F03D80/80 F03D9/00 F03D9/02 F03D9/17 F03D9/25 F03D9/28 F03G7/00 F03G7/08 F04B1/00 F04B1/04 F04B1/047 F04B1/053 F04B1/06 F04B1/07 F04B17/00 F04B17/02 F04B23/00 F04B35/00 F04B49/22 F04C15/00 F15B13/00 F15B13/04 F15B19/00 F15B20/00 F15B21/08 F16C35/00 F16D31/02 F16H39/02 F16H39/04 F16H39/20 F16H47/02 F16H47/04 F16H61/4035 F16H61/4043 F16H61/4096 F16H61/4148 F16H61/4192 F16H61/42 F16H61/421 F16H61/431 F16H61/468 F16H61/47 F16H61/472 F16H61/475 F16H61/478 H02K7/18 H02N11/00 H02P9/00 H02P9/04 H02P9/06 H02P9/30 (Advanced/Invention);
F16H39/02 (Advanced/Non-invention);
H05K (Subclass/Invention)

International (IPC 1-7): F03D11/02

CPC: F05B2260/301 F05B2270/337 F05B2220/70642 F05B2270/1041 F05B2270/1014 F15B20/007 H02P9/006 F16H61/4096 F03B17/061 F05B2230/604 F05B2240/61 F03D11/04 F03D1/06 Y02E10/226 F16H61/4035 F16H61/4148 F16H61/431 F16H61/475 Y10T29/49238 Y10T29/49718 F05B2240/14 F16H39/20 F16H61/4192 F16H61/472 F16H61/478 F05B2260/96 F03D80/50 F16C35/06 F16C43/04 F16C19/546 F16C19/385 F03D9/00 F03D7/02 F03D15/15 F03D13/25 F03D17/00 F03D15/10 F03D7/0284 F05B2270/328 F03D9/257 H02K7/1807 F05B2270/104 F16H61/468 F16H2059/6861 F04B49/22 F03C1/0403 F04B1/0404 F04B23/00 F05B2260/20 F05B2210/11 F05B2210/12 F03D13/40 F03D9/255 F05B2270/3201 Y02E10/72 Y02P80/158 H02P9/06 F05B2220/706 F05B2260/506 F05B2270/101 F05B2270/327 F05B2270/335 H02P9/04 H02P2101/15 F03B13/264 F03D7/028 F05B2240/97 F05B2270/20 F05B2270/32 F16H61/421 F16H61/47 Y02E60/17 F03B13/26 F04B1/0538 Y10T29/49236 F03C1/26 F03D80/00 F04B17/02 F03D80/60 F03D80/80 F05B2240/916 F05B2240/95 F28D1/022 Y02E10/727 Y02E10/728 F05B2260/90 F05B2260/904 F05B2270/326 F05B2270/506 F05B2270/604 F16H39/02

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Priority:

GB20100009012 20100528	GB20100009013 20100528	EP20100785302 20101130
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Probable Assignee: MITSUBISHI HEAVY IND LTD

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Inventor(s): RAMPEN WILLIAM MIDLOTHIAN LOTHIAN ; FIELDING MICHAEL RICHAR ; THE DESIGNATION OF THE INVENTOR HAS NOT YET... ; NIALL JAMES CALDWELL ; MICHAEL FIELDING ; DANIIL SERGEEVICH DUMNOV ; JAMIE TAYLOR ; DODSON HENRY MIDLOTHIAN ; ROBERTSON ALASDAIR MIDLOTHIAN ; STEIN UWE MIDLOTHIAN ; DUMNOV DANIIL LOANHEAD MIDLOTHIAN ; ROBERTSON ALASDAIR LOTHIAN ; STEIN UWE LOTHIAN ; KAMEDA TAKURO TOKYO ; DODSON HENRY LOTHIAN ; VENKATA PAPPALA ; STEPHEN LAIRD ; NIALL CALDWELL ; ROBERT FOX ; ATSUSHI MAEKAWA ; STEPHEN SALTER ; WILLIAM RAMPEN ; KARSTENS HAUKE LONDON ; BALDINI FRANCESCO LONDON ; CALDWELL NIALL MIDLOTHIAN ; DUMNOV DANIIL MIDLOTHIAN ; TAYLOR JAMIE MIDLOTHIAN ; ICHIRYUU TAKU AKASHI SHI ; DUDEN HEINRICH LONDON

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2010257226 AA	20120614	LSPB	+	published / reissued	
AU2010257226 AA	20150625	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2010257230 AA	20120614	LSPB	+	published / reissued	
AU2010257230 AA	20150625	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2010257233 AA	20120614	LSPB	+	published / reissued	
AU2010257233 AA	20150625	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2010257248 AA	20120614	LSPB	+	published / reissued	
AU2010257248 AB	20120802	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 10 JUL 2012

AU2010257248 AB	20150625	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2010257252 AA	20120614	LSPB	+	published / reissued	
AU2010257252 AA	20150625	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2011226997 AA	20111215	LSPB	+	published / reissued	
AU2011226997 AA	20140807	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2011226999 AA	20111215	LSPB	+	published / reissued	
AU2011226999 AA	20140807	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2011310935 AA	20130404	LSPB	+	published / reissued	
AU2011310935 AA	20160414	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2011310936 AA	20121018	LSPB	+	published / reissued	
AU2011310936 AA	20151029	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2011310939 AA	20121018	LSPB	+	published / reissued	
AU2011310939 AA	20160414	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2011338137 AA	20130228	LSPB	+	published / reissued	
AU2011338137 AA	20160310	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI1005505 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE AS 3A, 4A E 5A ANUIDADES.
BRPI1005505 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2384 DE 13-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
BRPI1005506 A2	20160906	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE AS 3A, 4A E 5A ANUIDADES.
BRPI1005506 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2383 DE 06-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO

					ARTIGO 12, DA RESOLUCAO 113/2013.
BRPI1005507 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE AS 3A, 4A E 5A ANUIDADES.
BRPI1005507 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2384 DE 13-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
BRPI1005508 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE AS 3A, 4A E 5A ANUIDADES.
BRPI1005508 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2384 DE 13-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
BRPI1005509 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE AS 3A, 4A E 5A ANUIDADES.
BRPI1005509 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2384 DE 13-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
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CA2724564 AA	20101214	LSPB	+	published / reissued	
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CA2724564 AA	20150127	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20141202
CA2724606 AA	20101214	LSPB	+	published / reissued	
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CA2724606 AA	20150125	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20141128
CA2724622 AA	20120530	LSPB	+	published / reissued	
CA2724622 AA	20101214	LSES	+EEER	EXAMINATION REQUEST	
CA2724622 AA	20150127	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20141202
CA2724633 AA	20101214	LSPB	+	published / reissued	
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CA2724633 AA	20150127	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20141202
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CN102597510 B	20310530	PEXP		Calculated Patent Term Expiry
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CN102741549 A	20121017	LSPB	+C06	PUBLICATION
CN102741549 A	20160210	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102741549 A	20170822	LSAS	TR01	TRANSFER OF PATENT RIGHT
CN102741549 B	20160210	LSGT	+	granted / extensions (spc, cpc, pte)
CN102741549 B	20310530	PEXP		Calculated Patent Term Expiry
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CN102803717 B	20150909	LSGT	+	granted / extensions (spc, cpc, pte)
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CN102803717 B	20301130	PEXP		Calculated Patent Term Expiry
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CN102803718 A	20121128	LSPB	+C06	PUBLICATION
CN102803718 A	20150617	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
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CN102822511 A	20140716	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
CN102822513 A	20121212	LSPB	+	published / reissued
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CN102822513 A	20140625	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
CN102859188 A	20130102	LSPB	+	published / reissued
CN102859188 A	20130102	LSPB	+C06	PUBLICATION
CN102859188 A	20140521	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
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CN102884312 A	20130116	LSPB	+C06	PUBLICATION
CN102884312 B	20160120	LSGT	+	granted / extensions (spc, cpc, pte)
CN102884312 B	20160120	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
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CN102884313 B	20160914	LSGT	+	granted / extensions (spc, cpc, pte)
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CN102884314 B	20161130	LSGT	+	granted / extensions (spc, cpc, pte)
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CN102959239 A	20151104	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
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CN102959240 A	20151104	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
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CN102985687 A	20151028	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
CN103003564 A	20130327	LSPB	+	published / reissued
CN103003564 A	20130327	LSPB	+C06	PUBLICATION
CN103003564 A	20151104	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
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CN103003567 A	20130327	LSPB	+C06	PUBLICATION
CN103003567 A	20151104	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)
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CN103038504 A	20130410	LSPB	+C06	PUBLICATION
CN103038504 A	20160106	LSDW	-C02	DEEMED WITHDRAWAL OF

				PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN103052796 A	20130417	LSPB	+	published / reissued	
CN103052796 A	20130417	LSPB	+C06	PUBLICATION	
CN103052796 A	20160106	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN103124844 A	20130529	LSPB	+	published / reissued	
CN103124844 A	20130529	LSPB	+C06	PUBLICATION	
CN103124844 A	20160210	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN103314211 A	20130918	LSPB	+	published / reissued	
CN103314211 A	20130918	LSPB	+C06	PUBLICATION	
CN103314211 A	20160302	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
DE602011035409 D1	20170807	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., TOKYO, JP OLDPARTY : ARTEMIS INTELLIGENT POWER LIMITED, LOANHEAD, GB
EP2414672 A2	20120208	LSPB	+	published / reissued	
EP2414672 A2	20120208	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110930
EP2414672 A2	20120530	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20120419
EP2414672 A2	20161026	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160926
EP2414672 B1	20170301	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2414672 B1	20170301	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170120
EP2414672 B1	20170301	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2414672 B1	20170315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2414672 B1	20170315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 871695 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170315
EP2414672 B1	20170322	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2414672 B1	20170413	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011035409 COUNTRY OF REF DOCUMENT : DE
EP2414672 B1	20170515	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2414672 B1	20170710	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D

EP2414672 B1	20170715	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 871695 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170301
EP2414672 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170602
EP2414672 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170601
EP2414672 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170615 YEAR OF FEE PAYMENT : 7
EP2414672 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170515 YEAR OF FEE PAYMENT : 7
EP2414672 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170517 YEAR OF FEE PAYMENT : 7
EP2414672 B1	20170807	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JP REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602011035409 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: ARTEMIS INTELLIGENT POWER LIMITED, LOANHEAD, GB
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170601
EP2414672 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170703
EP2414672 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170701
EP2414672 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20171204	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011035409 COUNTRY OF REF DOCUMENT : DE
EP2414672 B1	20171215	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JP REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20171106
EP2414672 B1	20171229	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2414672 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20180207	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20171204
EP2414672 B1	20180221	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2414672 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2414672 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2414672 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170530
EP2414672 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170530
EP2414672 B1	20180517	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2414672 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 8
EP2414672 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2414672 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180517 YEAR OF FEE PAYMENT : 8
EP2414672 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170530
EP2414672 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180515 YEAR OF FEE PAYMENT : 8
EP2414672 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110530

EP2414672 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190514 YEAR OF FEE PAYMENT : 9
EP2414672 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190410 YEAR OF FEE PAYMENT : 9
EP2414672 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP2414672 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190531 YEAR OF FEE PAYMENT : 9
EP2414672 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170301
EP2414672 B1	20310530	PEXP		Calculated Patent Term Expiry	
EP2454475 A2	20120523	LSPB	+	published / reissued	
EP2454475 A2	20120523	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120215
EP2454475 A2	20150729	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150629
EP2454475 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160525 YEAR OF FEE PAYMENT : 6
EP2454475 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160524 YEAR OF FEE PAYMENT : 6
EP2454475 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160412 YEAR OF FEE PAYMENT : 6
EP2454475 B1	20151028	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2454475 B1	20151028	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2454475 B1	20151030	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2454475 B1	20151115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 758097 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151115
EP2454475 B1	20151118	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2454475 B1	20151210	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011020996 COUNTRY OF REF DOCUMENT : DE
EP2454475 B1	20160225	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D

EP2454475 B1	20160315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 758097 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151028
EP2454475 B1	20160412	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160128
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160228
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028

EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160129
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160229
EP2454475 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160729	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011020996 COUNTRY OF REF DOCUMENT : DE
EP2454475 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028

EP2454475 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454475 B1	20161005	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160729
EP2454475 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160530
EP2454475 B1	20161230	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2454475 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454475 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531

EP2454475 B1	20170222	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2454475 B1	20170413	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2454475 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160530
EP2454475 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170523 YEAR OF FEE PAYMENT : 7
EP2454475 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170413 YEAR OF FEE PAYMENT : 7
EP2454475 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 7
EP2454475 B1	20180412	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2454475 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180329 YEAR OF FEE PAYMENT : 8
EP2454475 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110530
EP2454475 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454475 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180515 YEAR OF FEE PAYMENT : 8
EP2454475 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180412 YEAR OF FEE PAYMENT : 8
EP2454475 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454475 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190514 YEAR OF FEE PAYMENT : 9
EP2454475 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190410 YEAR OF FEE PAYMENT : 9
EP2454475 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190529 YEAR OF FEE PAYMENT : 9
EP2454475 B1	20310530	PEXP		Calculated Patent Term Expiry	
EP2454478 A2	20120523	LSPB	+	published / reissued	
EP2454478 A2	20120523	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120215
EP2454478 A2	20150729	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150629
EP2454478 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160524 YEAR OF FEE PAYMENT : 6
EP2454478 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160525 YEAR OF FEE PAYMENT : 6
EP2454478 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160412 YEAR OF FEE PAYMENT : 6
EP2454478 B1	20151028	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2454478 B1	20151028	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2454478 B1	20151030	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2454478 B1	20151115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 758100 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151115

EP2454478 B1	20151118	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2454478 B1	20151217	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011020994 COUNTRY OF REF DOCUMENT : DE
EP2454478 B1	20160225	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2454478 B1	20160315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 758100 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151028
EP2454478 B1	20160412	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160228
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : NO

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160128
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160129
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160229
EP2454478 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028

EP2454478 B1	20160729	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011020994 COUNTRY OF REF DOCUMENT : DE
EP2454478 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454478 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20161005	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160729
EP2454478 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160530
EP2454478 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20161230	LSLE	REG	REFERENCE TO A	REF COUNTRY CODE : CH

				NATIONAL CODE	REF LEGAL EVENT CODE : PL
EP2454478 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454478 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454478 B1	20170222	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2454478 B1	20170413	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2454478 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160530
EP2454478 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 7
EP2454478 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170413 YEAR OF FEE PAYMENT : 7
EP2454478 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170523 YEAR OF FEE PAYMENT : 7
EP2454478 B1	20180412	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2454478 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180329 YEAR OF FEE PAYMENT : 8
EP2454478 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110530
EP2454478 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454478 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028

EP2454478 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180515 YEAR OF FEE PAYMENT : 8
EP2454478 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180412 YEAR OF FEE PAYMENT : 8
EP2454478 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454478 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190514 YEAR OF FEE PAYMENT : 9
EP2454478 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190410 YEAR OF FEE PAYMENT : 9
EP2454478 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190529 YEAR OF FEE PAYMENT : 9
EP2454478 B1	20310530	PEXP		Calculated Patent Term Expiry	
EP2454479 A2	20120523	LSPB	+	published / reissued	
EP2454479 A2	20120523	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120215
EP2454479 A2	20150729	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150629
EP2454479 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160524 YEAR OF FEE PAYMENT : 6
EP2454479 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160525 YEAR OF FEE PAYMENT : 6
EP2454479 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160412 YEAR OF FEE PAYMENT : 6
EP2454479 B1	20151028	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2454479 B1	20151028	LSGT	REG	REFERENCE TO A	REF COUNTRY CODE : GB

				NATIONAL CODE	REF LEGAL EVENT CODE : FG4D
EP2454479 B1	20151030	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2454479 B1	20151115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 758101 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151115
EP2454479 B1	20151118	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2454479 B1	20151217	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011020995 COUNTRY OF REF DOCUMENT : DE
EP2454479 B1	20160225	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2454479 B1	20160315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 758101 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151028
EP2454479 B1	20160412	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160228
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160128
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160129
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160229
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160729	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011020995 COUNTRY OF REF DOCUMENT : DE
EP2454479 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454479 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20161005	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160729
EP2454479 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160530
EP2454479 B1	20161230	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2454479 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454479 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454479 B1	20170222	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2454479 B1	20170413	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2454479 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160530
EP2454479 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170413 YEAR OF FEE PAYMENT : 7
EP2454479 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 7
EP2454479 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170523 YEAR OF FEE PAYMENT : 7
EP2454479 B1	20180412	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2454479 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180329 YEAR OF FEE PAYMENT : 8
EP2454479 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110530
EP2454479 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028

EP2454479 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2454479 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180515 YEAR OF FEE PAYMENT : 8
EP2454479 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180412 YEAR OF FEE PAYMENT : 8
EP2454479 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151028
EP2454479 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190514 YEAR OF FEE PAYMENT : 9
EP2454479 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190410 YEAR OF FEE PAYMENT : 9
EP2454479 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190529 YEAR OF FEE PAYMENT : 9
EP2454479 B1	20310530	PEXP		Calculated Patent Term Expiry	
EP2478216 A2	20120725	LSPB	+	published / reissued	
EP2478216 A2	20120725	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101215
EP2478216 A2	20120905	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20120802
EP2478216 A2	20130529	LSES	+17Q	FIRST EXAMINATION	EFFECTIVE DATE : 20130429

				REPORT DESPATCHED	
EP2478216 A2	20150121	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150108
EP2478216 B1	20150527	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2478216 B1	20150527	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2478216 B1	20150529	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2478216 B1	20150615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 729008 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150615
EP2478216 B1	20150701	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2478216 B1	20150709	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010024944 COUNTRY OF REF DOCUMENT : DE
EP2478216 B1	20151008	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2478216 B1	20151015	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 729008 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150527
EP2478216 B1	20151026	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2478216 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150827
EP2478216 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150928
EP2478216 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150827
EP2478216 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150828
EP2478216 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150927
EP2478216 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150527
EP2478216 B1	20160301	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010024944 COUNTRY OF REF DOCUMENT : DE
EP2478216 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160504	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160301
EP2478216 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151130
EP2478216 B1	20160630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2478216 B1	20160729	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2478216 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2478216 B1	20160824	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2478216 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2478216 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2478216 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 7
EP2478216 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 7
EP2478216 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 7
EP2478216 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20101130
EP2478216 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527

EP2478216 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2478216 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 8
EP2478216 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 8
EP2478216 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 8
EP2478216 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2478216 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150527
EP2478216 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 9
EP2478216 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 9
EP2478216 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 9
EP2478216 B1	20301130	PEXP		Calculated Patent Term Expiry	
EP2478218 A1	20120725	LSPB	+	published / reissued	

EP2478218 A1	20120725	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101215
EP2478218 A1	20180704	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180606
EP2478218 B1	20181024	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2478218 B1	20181024	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2478218 B1	20181114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2478218 B1	20181115	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010054616 COUNTRY OF REF DOCUMENT : DE
EP2478218 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1056969 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181115
EP2478218 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181130 YEAR OF FEE PAYMENT : 9
EP2478218 B1	20190312	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2478218 B1	20190315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1056969 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181024
EP2478218 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190124

EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190124
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190224
EP2478218 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190115 YEAR OF FEE PAYMENT : 9
EP2478218 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190118 YEAR OF FEE PAYMENT : 9
EP2478218 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190125
EP2478218 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20181024
EP2478218 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190224
EP2478218 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190628	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2478218 B1	20190725	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010054616 COUNTRY OF REF DOCUMENT : DE
EP2478218 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181130
EP2478218 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190821	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181130
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181130
EP2478218 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20191002	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190725
EP2478218 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2478218 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181130
EP2478218 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181130
EP2478218 B1	20301130	PEXP		Calculated Patent Term Expiry	
EP2480788 A1	20120801	LSPB	+	published / reissued	
EP2480788 A1	20120801	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110110
EP2480788 A1	20150603	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150508
EP2480788 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20151222 YEAR OF FEE PAYMENT : 6
EP2480788 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151223 YEAR OF FEE PAYMENT : 6

				EPO]	
EP2480788 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151231 YEAR OF FEE PAYMENT : 6
EP2480788 B1	20150826	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2480788 B1	20150826	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2480788 B1	20150828	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2480788 B1	20150915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 745329 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150915
EP2480788 B1	20150923	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2480788 B1	20151008	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010027032 COUNTRY OF REF DOCUMENT : DE
EP2480788 B1	20151231	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2480788 B1	20160115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 745329 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150826
EP2480788 B1	20160125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2480788 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151127
EP2480788 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151126
EP2480788 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151228
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151226
EP2480788 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : NL

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160530	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010027032 COUNTRY OF REF DOCUMENT : DE
EP2480788 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151130
EP2480788 B1	20160630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL

EP2480788 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2480788 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2480788 B1	20160803	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160530
EP2480788 B1	20160824	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2480788 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2480788 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2480788 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 7
EP2480788 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 7
EP2480788 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 7
EP2480788 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20101130
EP2480788 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2480788 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 8
EP2480788 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 8
EP2480788 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 8
EP2480788 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2480788 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2480788 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 9
EP2480788 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 9
EP2480788 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 9

EP2480788 B1	20301130	PEXP		Calculated Patent Term Expiry	
EP2486273 A1	20120815	LSPB	+	published / reissued	
EP2486273 A1	20120815	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120213
EP2486273 A1	20130821	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20130723
EP2486273 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140501
EP2486273 A1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 6
EP2486273 B1	20140101	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2486273 B1	20140101	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2486273 B1	20140115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2486273 B1	20140129	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2486273 B1	20140215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 647725 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140215
EP2486273 B1	20140220	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011004495 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140220
EP2486273 B1	20140514	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140101
EP2486273 B1	20140515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 647725 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140101
EP2486273 B1	20140625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2486273 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140501
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140502
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141002	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011004495 COUNTRY OF REF DOCUMENT : DE
EP2486273 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20141210	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20141002
EP2486273 B1	20150108	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE :

					R097 REF DOCUMENT NUMBER : 602011004495 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141002
EP2486273 B1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141130
EP2486273 B1	20150630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2486273 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2486273 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2486273 B1	20150826	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2486273 B1	20150828	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20150731
EP2486273 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2486273 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141201
EP2486273 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140401
EP2486273 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101

EP2486273 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140402
EP2486273 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111130
EP2486273 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 6
EP2486273 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 7
EP2486273 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2486273 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140101
EP2486273 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 8
EP2486273 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 8
EP2486273 B1	20311130	PEXP		Calculated Patent Term Expiry	
EP2486274 A2	20120815	LSPB	+	published / reissued	
EP2486274 A2	20120815	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120217
EP2486274 A2	20120919	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20120816
EP2486274 A2	20141015	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140915
EP2486274 A2	20150527	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150429
EP2486274 A2	20150819	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150724
EP2486274 B1	20160120	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2486274 B1	20160120	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2486274 B1	20160129	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2486274 B1	20160210	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2486274 B1	20160215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 771886 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160215
EP2486274 B1	20160303	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011022866 COUNTRY OF REF DOCUMENT : DE
EP2486274 B1	20160525	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2486274 B1	20160615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 771886 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160120
EP2486274 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160421

EP2486274 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2486274 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160520
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160520
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20160120
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2486274 B1	20161021	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011022866 COUNTRY OF REF DOCUMENT : DE
EP2486274 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120

EP2486274 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20161228	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20161021
EP2486274 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 6
EP2486274 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 6
EP2486274 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 6
EP2486274 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2486274 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20170630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2486274 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2486274 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2486274 B1	20170823	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2486274 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2486274 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2486274 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				NATIONAL OFFICE TO EPO]	LAPSED DATE : 20161130
EP2486274 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 7
EP2486274 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 7
EP2486274 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2486274 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111130
EP2486274 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2486274 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2486274 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160120
EP2486274 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 8
EP2486274 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	: GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 8
EP2486274 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 8
EP2486274 B1	20311130	PEXP		Calculated Patent Term Expiry	
EP2488751 A1	20120822	LSPB	+	published / reissued	
EP2488751 A1	20120822	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101215
EP2488751 A1	20130911	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20130812
EP2488751 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140508
EP2488751 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140408
EP2488751 A1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 7
EP2488751 B1	20140108	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2488751 B1	20140108	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2488751 B1	20140115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2488751 B1	20140129	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2488751 B1	20140215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 648918 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140215
EP2488751 B1	20140220	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010013054 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140220
EP2488751 B1	20140515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 648918 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF

					DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140108
EP2488751 B1	20140521	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140108
EP2488751 B1	20140625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2488751 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140408
EP2488751 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140508
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140508
EP2488751 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141009	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010013054 COUNTRY OF REF DOCUMENT : DE
EP2488751 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20141217	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20141009
EP2488751 B1	20150115	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010013054 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141009
EP2488751 B1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141130
EP2488751 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20150630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2488751 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2488751 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2488751 B1	20150826	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2488751 B1	20150828	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20150731
EP2488751 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				NATIONAL OFFICE TO EPO]	LAPSED DATE : 20141130
EP2488751 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141201
EP2488751 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140409
EP2488751 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20101130
EP2488751 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 7
EP2488751 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 8
EP2488751 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 8
EP2488751 B1	20180629	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2488751 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 9
EP2488751 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 9
EP2488751 B1	20301130	PEXP		Calculated Patent Term Expiry	
EP2494193 A1	20120905	LSPB	+	published / reissued	
EP2494193 A1	20120905	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101215
EP2494193 A1	20140101	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20131127
EP2494193 A1	20140903	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20140804
EP2494193 A1	20150304	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150206
EP2494193 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20151125 YEAR OF FEE PAYMENT : 6
EP2494193 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151125 YEAR OF FEE PAYMENT : 6
EP2494193 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151008 YEAR OF FEE PAYMENT : 6
EP2494193 B1	20150617	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2494193 B1	20150617	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2494193 B1	20150630	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2494193 B1	20150715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 732090 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150715
EP2494193 B1	20150729	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2494193 B1	20150730	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010025333 COUNTRY OF REF DOCUMENT : DE
EP2494193 B1	20151008	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR

					REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2494193 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150917
EP2494193 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20151115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 732090 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150617
EP2494193 B1	20151125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2494193 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150917
EP2494193 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20150918
EP2494193 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151017
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150617
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151019
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160318	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010025333 COUNTRY OF REF DOCUMENT : DE

EP2494193 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160525	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160318
EP2494193 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151130
EP2494193 B1	20160630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2494193 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2494193 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2494193 B1	20160824	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2494193 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2494193 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2494193 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617

EP2494193 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 7
EP2494193 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 7
EP2494193 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 7
EP2494193 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20101130
EP2494193 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2494193 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 8

EP2494193 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 8
EP2494193 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 8
EP2494193 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2494193 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2494193 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 9
EP2494193 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 9
EP2494193 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 9
EP2494193 B1	20301130	PEXP		Calculated Patent Term Expiry	
EP2530307 A1	20121205	LSPB	+	published / reissued	
EP2530307 A1	20121205	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20111229
EP2530307 A4	20130717	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130613
EP2530307 A4	20140806	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140114
EP2530310 A1	20121205	LSPB	+	published / reissued	
EP2530310 A1	20121205	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120217
EP2530310 A1	20130828	LSES	+R17P	REQUEST FOR EXAMINATION FILED (CORRECTED)	EFFECTIVE DATE : 20120217
EP2530310 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160921 YEAR OF FEE PAYMENT : 6
EP2530310 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160913 YEAR OF FEE PAYMENT : 6
EP2530310 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160816 YEAR OF FEE PAYMENT : 6
EP2530310 A4	20131030	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130927
EP2530310 A4	20140212	LSGT	+INTG	INTENTION TO	EFFECTIVE DATE : 20140117

				GRANT ANNOUNCED	
EP2530310 B1	20140514	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2530310 B1	20140514	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2530310 B1	20140615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 668483 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140615
EP2530310 B1	20140618	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2530310 B1	20140626	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011007115 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140626
EP2530310 B1	20141015	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 668483 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140514
EP2530310 B1	20141015	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140514
EP2530310 B1	20141027	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2530310 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140815
EP2530310 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140914
EP2530310 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140814
EP2530310 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20141231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140915
EP2530310 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : DK

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150217	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011007115 COUNTRY OF REF DOCUMENT : DE
EP2530310 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150422	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150217
EP2530310 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514

EP2530310 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140922
EP2530310 B1	20150430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2530310 B1	20150528	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011007115 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150217
EP2530310 B1	20150617	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2530310 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140930
EP2530310 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140930
EP2530310 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140922
EP2530310 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110922

EP2530310 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20160816	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2530310 B1	20170810	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2530310 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2530310 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2530310 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 7
EP2530310 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20180813	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2530310 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140514
EP2530310 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180813 YEAR OF FEE PAYMENT : 8
EP2530310 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 8
EP2530310 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 8
EP2530310 B1	20310922	PEXP		Calculated Patent Term Expiry	
EP2532890 A1	20121212	LSPB	+	published / reissued	
EP2532890 A1	20121212	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120131
EP2532890 A4	20130619	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130523
EP2532890 A4	20140827	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140103

EP2570660 A1	20130320	LSPB	+	published / reissued	
EP2570660 A1	20130320	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20111229
EP2570660 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160810 YEAR OF FEE PAYMENT : 6
EP2570660 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160802 YEAR OF FEE PAYMENT : 6
EP2570660 A4	20130529	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130503
EP2570660 A4	20130828	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20130731
EP2570660 B1	20140108	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2570660 B1	20140108	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2570660 B1	20140115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2570660 B1	20140129	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2570660 B1	20140215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 648917 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140215
EP2570660 B1	20140220	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011004634 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140220
EP2570660 B1	20140515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 648917 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140108
EP2570660 B1	20140521	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140108
EP2570660 B1	20140625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2570660 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140408
EP2570660 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108

EP2570660 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140508
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140508
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20140108
EP2570660 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141009	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011004634 COUNTRY OF REF DOCUMENT : DE
EP2570660 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20141217	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20141009
EP2570660 B1	20150115	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011004634 COUNTRY OF REF DOCUMENT

					: DE EFFECTIVE DATE : 20141009
EP2570660 B1	20150331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140810
EP2570660 B1	20150331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20150331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2570660 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140831
EP2570660 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140831
EP2570660 B1	20150520	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2570660 B1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20150529	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20150430
EP2570660 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140901
EP2570660 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140810
EP2570660 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140409
EP2570660 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110810
EP2570660 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170801 YEAR OF FEE PAYMENT : 7
EP2570660 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170809 YEAR OF FEE PAYMENT : 7
EP2570660 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140108
EP2570660 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180731 YEAR OF FEE PAYMENT : 8
EP2570660 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180808 YEAR OF FEE PAYMENT : 8
EP2570660 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190730 YEAR OF FEE PAYMENT : 9
EP2570660 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190814 YEAR OF FEE PAYMENT : 9

				EPO]	
EP2570660 B1	20310810	PEXP		Calculated Patent Term Expiry	
EP2574201 A1	20130403	LSPB	+	published / reissued	
EP2574201 A1	20130403	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20121227
EP2574201 A1	20141015	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140912
EP2574201 A1	20160120	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160105
EP2574201 B1	20160518	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2574201 B1	20160518	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2574201 B1	20160531	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2574201 B1	20160615	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2574201 B1	20160615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 800726 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160615
EP2574201 B1	20160630	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012018526 COUNTRY OF REF DOCUMENT : DE
EP2574201 B1	20160926	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2574201 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160818
EP2574201 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 800726

					COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160518
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160919
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160819
EP2574201 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170112	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2574201 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170221	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012018526 COUNTRY OF REF DOCUMENT : DE
EP2574201 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170426	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170221
EP2574201 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20170112 YEAR OF FEE PAYMENT : 6
EP2574201 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170221 YEAR OF FEE PAYMENT : 6
EP2574201 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170222 YEAR OF FEE PAYMENT : 6
EP2574201 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2574201 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2574201 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2574201 B1	20171129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2574201 B1	20171229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170224
EP2574201 B1	20180111	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2574201 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170224
EP2574201 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180214 YEAR OF FEE PAYMENT : 7
EP2574201 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180221 YEAR OF FEE PAYMENT : 7
EP2574201 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180111 YEAR OF FEE PAYMENT : 7
EP2574201 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				NATIONAL OFFICE TO EPO]	LAPSED DATE : 20170224
EP2574201 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 8
EP2574201 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190111 YEAR OF FEE PAYMENT : 8
EP2574201 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190212 YEAR OF FEE PAYMENT : 8
EP2574201 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120224
EP2574201 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160518
EP2574201 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2574201 B1	20320224	PEXP		Calculated Patent Term Expiry	
EP2577056 A2	20130410	LSPB	+	published / reissued	
EP2577056 A2	20130410	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110930
EP2577056 A2	20180425	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD.
EP2577056 A2	20180725	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180627
EP2577056 B1	20181107	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2577056 B1	20181107	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181002
EP2577056 B1	20181107	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2577056 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2577056 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1062355

					COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181115
EP2577056 B1	20181128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2577056 B1	20181129	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011053616 COUNTRY OF REF DOCUMENT : DE
EP2577056 B1	20190325	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2577056 B1	20190415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1062355 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181107
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190307
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190207
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : HR

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190207
EP2577056 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190208
EP2577056 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190307
EP2577056 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190731	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190603 YEAR OF FEE PAYMENT : 9
EP2577056 B1	20190808	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011053616 COUNTRY OF REF DOCUMENT : DE
EP2577056 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2577056 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190529 YEAR OF FEE PAYMENT : 9
EP2577056 B1	20191016	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190808
EP2577056 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20181107
EP2577056 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190531 YEAR OF FEE PAYMENT : 9
EP2577056 B1	20191230	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2577056 B1	20310530	PEXP		Calculated Patent Term Expiry	
EP2585714 A1	20130501	LSPB	+	published / reissued	
EP2585714 A1	20130501	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130125
EP2585714 A1	20141126	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20141028
EP2585714 A1	20151118	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20151022
EP2585714 B1	20160413	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2585714 B1	20160413	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2585714 B1	20160415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2585714 B1	20160415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 790451 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160415
EP2585714 B1	20160504	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2585714 B1	20160602	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011025259 COUNTRY OF REF DOCUMENT : DE
EP2585714 B1	20160810	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2585714 B1	20160915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 790451 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160413
EP2585714 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160713
EP2585714 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160816
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160714
EP2585714 B1	20161130	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170112	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2585714 B1	20170116	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011025259 COUNTRY OF REF DOCUMENT : DE
EP2585714 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170322	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170116
EP2585714 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170214 YEAR OF FEE PAYMENT : 7
EP2585714 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170112 YEAR OF FEE PAYMENT : 7
EP2585714 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170215 YEAR OF FEE PAYMENT : 7
EP2585714 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2585714 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2585714 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2585714 B1	20171129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2585714 B1	20171229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170218
EP2585714 B1	20180111	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2585714 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170218
EP2585714 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180206 YEAR OF FEE PAYMENT : 8
EP2585714 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180214 YEAR OF FEE PAYMENT : 8

EP2585714 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180111 YEAR OF FEE PAYMENT : 8
EP2585714 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170218
EP2585714 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190205 YEAR OF FEE PAYMENT : 9
EP2585714 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190111 YEAR OF FEE PAYMENT : 9
EP2585714 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190213 YEAR OF FEE PAYMENT : 9
EP2585714 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110218
EP2585714 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160413
EP2585714 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160413
EP2585714 B1	20310218	PEXP		Calculated Patent Term Expiry	
EP2587055 A1	20130501	LSPB	+	published / reissued	
EP2587055 A1	20130501	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120127
EP2587055 A1	20130501	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130104
EP2587055 A1	20131002	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20130906
EP2587055 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20140512
EP2587055 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140612
EP2587055 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160913 YEAR OF FEE PAYMENT : 6
EP2587055 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160921 YEAR OF FEE PAYMENT : 6
EP2587055 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160816 YEAR OF FEE PAYMENT : 6
EP2587055 B1	20140212	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2587055 B1	20140212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2587055 B1	20140214	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2587055 B1	20140215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 652277 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140215
EP2587055 B1	20140326	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2587055 B1	20140327	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011004960 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140327
EP2587055 B1	20140618	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140212
EP2587055 B1	20140715	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 652277 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140212
EP2587055 B1	20140725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2587055 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140512
EP2587055 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140612
EP2587055 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140612
EP2587055 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : RS

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20141113	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011004960 COUNTRY OF REF DOCUMENT : DE
EP2587055 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : SK

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20150121	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20141113
EP2587055 B1	20150226	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011004960 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141113
EP2587055 B1	20150331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140922
EP2587055 B1	20150430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2587055 B1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20150617	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2587055 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140930
EP2587055 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140930
EP2587055 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140922
EP2587055 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212

EP2587055 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140513
EP2587055 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110922
EP2587055 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20160816	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2587055 B1	20170810	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2587055 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2587055 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2587055 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 7
EP2587055 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20180813	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2587055 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : AL

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140212
EP2587055 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 8
EP2587055 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180813 YEAR OF FEE PAYMENT : 8
EP2587055 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 8
EP2587055 B1	20310922	PEXP		Calculated Patent Term Expiry	
EP2597306 A1	20130529	LSPB	+	published / reissued	
EP2597306 A1	20130529	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120217
EP2597306 A1	20130814	LSES	+R17P	REQUEST FOR EXAMINATION FILED (CORRECTED)	EFFECTIVE DATE : 20120217
EP2597306 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160913 YEAR OF FEE PAYMENT : 6
EP2597306 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160921 YEAR OF FEE PAYMENT : 6
EP2597306 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160816 YEAR OF FEE PAYMENT : 6
EP2597306 A4	20131113	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20131010
EP2597306 A4	20150429	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150330
EP2597306 A4	20150729	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150703
EP2597306 B1	20150826	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2597306 B1	20150826	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2597306 B1	20150828	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2597306 B1	20150915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 745371 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150915
EP2597306 B1	20150923	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2597306 B1	20151008	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011019264 COUNTRY OF REF DOCUMENT : DE
EP2597306 B1	20160115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05

					REF DOCUMENT NUMBER : 745371 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150826
EP2597306 B1	20160125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2597306 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151127
EP2597306 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151126
EP2597306 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151226
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151228
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160429	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2597306 B1	20160530	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011019264 COUNTRY OF REF DOCUMENT : DE
EP2597306 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20160629	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2597306 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150930
EP2597306 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150930
EP2597306 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150922
EP2597306 B1	20160803	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160530
EP2597306 B1	20160816	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2597306 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20170331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110922
EP2597306 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20170810	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2597306 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2597306 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 7
EP2597306 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2597306 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150922
EP2597306 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20180813	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8

EP2597306 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150826
EP2597306 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 8
EP2597306 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180813 YEAR OF FEE PAYMENT : 8
EP2597306 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 8
EP2597306 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 9
EP2597306 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 9
EP2597306 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190920 YEAR OF FEE PAYMENT : 9
EP2597306 B1	20310922	PEXP		Calculated Patent Term Expiry	
EP2646685 A1	20131009	LSPB	+	published / reissued	
EP2646685 A1	20131009	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120213
EP2646685 A1	20131127	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20131101
EP2646685 A1	20140514	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20140416
EP2646685 B1	20140903	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2646685 B1	20140903	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2646685 B1	20140915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2646685 B1	20140915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 685771 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140915
EP2646685 B1	20140924	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2646685 B1	20141016	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011009712 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141016
EP2646685 B1	20150115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 685771 COUNTRY OF REF DOCUMENT

					: AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140903
EP2646685 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141204
EP2646685 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141203
EP2646685 B1	20150204	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140903
EP2646685 B1	20150225	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2646685 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150103
EP2646685 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150105
EP2646685 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : PL

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150604	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011009712 COUNTRY OF REF DOCUMENT : DE
EP2646685 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2646685 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141130
EP2646685 B1	20150630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2646685 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2646685 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2646685 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20150812	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150604
EP2646685 B1	20150826	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2646685 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20151008	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2646685 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : IE

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2646685 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111130
EP2646685 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2646685 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 6
EP2646685 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 6
EP2646685 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 6

EP2646685 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2646685 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 7
EP2646685 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 7
EP2646685 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2646685 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2646685 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140903
EP2646685 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 8
EP2646685 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 8
EP2646685 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 8
EP2646685 B1	20311130	PEXP		Calculated Patent Term Expiry	
EP2650533 A1	20131016	LSPB	+	published / reissued	
EP2650533 A1	20131016	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130321
EP2650533 A1	20150506	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150414
EP2650533 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20151222 YEAR OF FEE PAYMENT : 5
EP2650533 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151223 YEAR OF FEE PAYMENT : 5
EP2650533 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151231 YEAR OF FEE PAYMENT : 5
EP2650533 B1	20150902	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2650533 B1	20150902	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2650533 B1	20150915	LSNP	REG	REFERENCE TO A	REF COUNTRY CODE : CH

				NATIONAL CODE	REF LEGAL EVENT CODE : EP
EP2650533 B1	20150915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 746788 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150915
EP2650533 B1	20150923	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2650533 B1	20151015	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011019493 COUNTRY OF REF DOCUMENT : DE
EP2650533 B1	20151231	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2650533 B1	20160115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 746788 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150902
EP2650533 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151202
EP2650533 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151203
EP2650533 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160210	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D

EP2650533 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160102
EP2650533 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20150902
EP2650533 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160104
EP2650533 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160603	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011019493 COUNTRY OF REF DOCUMENT : DE
EP2650533 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151130
EP2650533 B1	20160630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2650533 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2650533 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2650533 B1	20160810	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160603
EP2650533 B1	20160824	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2650533 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : DK

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2650533 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151130
EP2650533 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 6
EP2650533 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 6
EP2650533 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 6
EP2650533 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111130
EP2650533 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902

EP2650533 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2650533 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 7
EP2650533 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 7
EP2650533 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2650533 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2650533 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150902
EP2650533 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 8
EP2650533 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 8
EP2650533 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 8
EP2650533 B1	20311130	PEXP		Calculated Patent Term Expiry	
EP2687720 A1	20140122	LSPB	+	published / reissued	
EP2687720 A1	20140122	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130130
EP2687720 A4	20140409	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140311
EP2687720 A4	20141126	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20141022

				DESPATCHED	
EP2687720 A4	20160316	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160219
EP2687720 A4	20160629	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160525
EP2687720 B1	20160706	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2687720 B1	20160706	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2687720 B1	20160715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2687720 B1	20160715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 810930 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160715
EP2687720 B1	20160727	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2687720 B1	20160818	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011028025 COUNTRY OF REF DOCUMENT : DE
EP2687720 B1	20161110	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2687720 B1	20161125	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2687720 B1	20161215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 810930 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161006
EP2687720 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161106
EP2687720 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161115 YEAR OF FEE PAYMENT : 6
EP2687720 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161121 YEAR OF FEE PAYMENT : 6
EP2687720 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161125 YEAR OF FEE PAYMENT : 6
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161007
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160706
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161107
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170407	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011028025 COUNTRY OF REF DOCUMENT : DE
EP2687720 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161006
EP2687720 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706

EP2687720 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170614	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170407
EP2687720 B1	20170630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2687720 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2687720 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2687720 B1	20170823	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2687720 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2687720 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2687720 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2687720 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 7
EP2687720 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 7
EP2687720 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2687720 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111130
EP2687720 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2687720 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2687720 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160706
EP2687720 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 8
EP2687720 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 8
EP2687720 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 8
EP2687720 B1	20311130	PEXP		Calculated Patent Term Expiry	
EP2721295 A1	20140423	LSPB	+	published / reissued	
EP2721295 A1	20140423	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140116
EP2721295 A1	20141231	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20141201
EP2721295 A1	20150729	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150701
EP2721295 A1	20151202	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20151029

EP2721295 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160601 YEAR OF FEE PAYMENT : 5
EP2721295 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160601 YEAR OF FEE PAYMENT : 5
EP2721295 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160516 YEAR OF FEE PAYMENT : 5
EP2721295 B1	20151230	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2721295 B1	20151230	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2721295 B1	20151231	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2721295 B1	20160115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 767619 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160115
EP2721295 B1	20160127	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2721295 B1	20160211	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012013386 COUNTRY OF REF DOCUMENT : DE
EP2721295 B1	20160425	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2721295 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2721295 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 767619 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151230
EP2721295 B1	20160516	LSFE	REG	REFERENCE TO A	COUNTRY OF REF DOCUMENT

				NATIONAL CODE	: FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2721295 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160331
EP2721295 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : PL

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160502
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160430
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20161003	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012013386 COUNTRY OF REF DOCUMENT : DE
EP2721295 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20161207	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20161003

EP2721295 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20170131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2721295 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20170322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2721295 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160630
EP2721295 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160630
EP2721295 B1	20170511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2721295 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160605
EP2721295 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170511 YEAR OF FEE PAYMENT : 6
EP2721295 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170531 YEAR OF FEE PAYMENT : 6
EP2721295 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 6
EP2721295 B1	20180511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2721295 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120605

EP2721295 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160630
EP2721295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160605
EP2721295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 7
EP2721295 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180511 YEAR OF FEE PAYMENT : 7
EP2721295 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP2721295 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180530 YEAR OF FEE PAYMENT : 7
EP2721295 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190521 YEAR OF FEE PAYMENT : 8
EP2721295 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190510 YEAR OF FEE PAYMENT : 8
EP2721295 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190605 YEAR OF FEE PAYMENT : 8
EP2721295 B1	20320605	PEXP		Calculated Patent Term Expiry	

EP2754892 A1	20140716	LSPB	+	published / reissued	
EP2754892 A1	20140716	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140331
EP2754892 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160914 YEAR OF FEE PAYMENT : 5
EP2754892 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160907 YEAR OF FEE PAYMENT : 5
EP2754892 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160816 YEAR OF FEE PAYMENT : 5
EP2754892 A4	20141231	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20141202
EP2754892 A4	20151007	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150907
EP2754892 B1	20160309	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2754892 B1	20160309	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2754892 B1	20160315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2754892 B1	20160315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 779739 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160315
EP2754892 B1	20160406	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2754892 B1	20160421	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012015558 COUNTRY OF REF DOCUMENT : DE
EP2754892 B1	20160711	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2754892 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160610

EP2754892 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160609
EP2754892 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 779739 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160309
EP2754892 B1	20160816	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2754892 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309

EP2754892 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160709
EP2754892 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160711
EP2754892 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20161212	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012015558 COUNTRY OF REF DOCUMENT : DE
EP2754892 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309

EP2754892 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20170215	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20161212
EP2754892 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160609
EP2754892 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20170428	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2754892 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20170628	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2754892 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2754892 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2754892 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160914
EP2754892 B1	20170810	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2754892 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160914
EP2754892 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170905 YEAR OF FEE PAYMENT : 6

				EPO]	
EP2754892 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 6
EP2754892 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170913 YEAR OF FEE PAYMENT : 6
EP2754892 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120914
EP2754892 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2754892 B1	20180813	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2754892 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160309
EP2754892 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180904 YEAR OF FEE PAYMENT : 7
EP2754892 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180813 YEAR OF FEE PAYMENT : 7
EP2754892 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180912 YEAR OF FEE PAYMENT : 7
EP2754892 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190903 YEAR OF FEE PAYMENT : 8

EP2754892 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 8
EP2754892 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190912 YEAR OF FEE PAYMENT : 8
EP2754892 B1	20320914	PEXP		Calculated Patent Term Expiry	
EP2754893 A1	20140716	LSPB	+	published / reissued	
EP2754893 A1	20140716	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140331
EP2754893 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160914 YEAR OF FEE PAYMENT : 5
EP2754893 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160916 YEAR OF FEE PAYMENT : 5
EP2754893 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 5
EP2754893 A4	20151209	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20151109
EP2754893 A4	20160420	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160329
EP2754893 B1	20160720	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2754893 B1	20160720	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2754893 B1	20160729	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2754893 B1	20160810	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2754893 B1	20160815	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 814328 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160815
EP2754893 B1	20160825	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012020886 COUNTRY OF REF DOCUMENT : DE
EP2754893 B1	20160926	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2754893 B1	20161110	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2754893 B1	20161215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 814328 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160720

EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161020
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161120
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161021
EP2754893 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161121
EP2754893 B1	20170421	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012020886 COUNTRY OF REF DOCUMENT : DE
EP2754893 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720

EP2754893 B1	20170428	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2754893 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161020
EP2754893 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20170628	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170421
EP2754893 B1	20170628	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2754893 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2754893 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160914
EP2754893 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2754893 B1	20170810	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2754893 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160914
EP2754893 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170905 YEAR OF FEE PAYMENT : 6
EP2754893 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 6
EP2754893 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170913 YEAR OF FEE PAYMENT : 6
EP2754893 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120914
EP2754893 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2754893 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20180813	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2754893 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2754893 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180904 YEAR OF FEE PAYMENT : 7
EP2754893 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180813 YEAR OF FEE PAYMENT : 7
EP2754893 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	: GB PAYMENT DATE : 20180912 YEAR OF FEE PAYMENT : 7
EP2754893 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 8
EP2754893 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190903 YEAR OF FEE PAYMENT : 8
EP2754893 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190912 YEAR OF FEE PAYMENT : 8
EP2754893 B1	20320914	PEXP		Calculated Patent Term Expiry	
EP2758661 A1	20140730	LSPB	+	published / reissued	
EP2758661 A1	20140730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140124
EP2758661 A1	20150422	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20150320
EP2758661 A1	20160720	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160622
EP2758661 B1	20161005	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2758661 B1	20161005	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2758661 B1	20161014	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2758661 B1	20161015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 834911 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161015
EP2758661 B1	20161102	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2758661 B1	20161124	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012023745 COUNTRY OF REF DOCUMENT : DE
EP2758661 B1	20170210	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2758661 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 834911 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161005
EP2758661 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170105
EP2758661 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170106
EP2758661 B1	20170511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20170205
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170206
EP2758661 B1	20170706	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012023745 COUNTRY OF REF DOCUMENT : DE
EP2758661 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170511 YEAR OF FEE PAYMENT : 6
EP2758661 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 6
EP2758661 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170105
EP2758661 B1	20170913	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170706
EP2758661 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170621 YEAR OF FEE PAYMENT : 6
EP2758661 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20180131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2758661 B1	20180404	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2758661 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170630
EP2758661 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170629
EP2758661 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-

				INFORMATION FROM NATIONAL OFFICE TO EPO]	PAYMENT OF DUE FEES LAPSED DATE : 20170630
EP2758661 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170629
EP2758661 B1	20180511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2758661 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180619 YEAR OF FEE PAYMENT : 7
EP2758661 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180511 YEAR OF FEE PAYMENT : 7
EP2758661 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170629
EP2758661 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180627 YEAR OF FEE PAYMENT : 7
EP2758661 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120629
EP2758661 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190618 YEAR OF FEE PAYMENT : 8
EP2758661 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190510 YEAR OF FEE PAYMENT : 8
EP2758661 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161005
EP2758661 B1	20320629	PEXP		Calculated Patent Term Expiry	
EP2759700 A1	20140730	LSPB	+	published / reissued	
EP2759700 A1	20140730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130130
EP2759700 A4	20150225	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20150123
EP2759700 A4	20151021	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150922
EP2759700 B1	20160330	LSGT	+	granted / extensions (spc, cpc, pte)	

EP2759700 B1	20160330	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2759700 B1	20160331	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2759700 B1	20160415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 785707 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160415
EP2759700 B1	20160420	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2759700 B1	20160504	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011024784 COUNTRY OF REF DOCUMENT : DE
EP2759700 B1	20160725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2759700 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160630
EP2759700 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160701
EP2759700 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20160815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 785707 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160330
EP2759700 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330

EP2759700 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20160930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161014	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2759700 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160730
EP2759700 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160801
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20170103	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011024784 COUNTRY OF REF DOCUMENT : DE
EP2759700 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 6
EP2759700 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 6
EP2759700 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	: FR PAYMENT DATE : 20161014 YEAR OF FEE PAYMENT : 6
EP2759700 B1	20170308	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170103
EP2759700 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20170630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2759700 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2759700 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2759700 B1	20170823	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2759700 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2759700 B1	20171012	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2759700 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2759700 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171121 YEAR OF FEE PAYMENT : 7
EP2759700 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171012 YEAR OF FEE PAYMENT : 7
EP2759700 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2759700 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111130
EP2759700 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20180629	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161130
EP2759700 B1	20181011	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2759700 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160330
EP2759700 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181120 YEAR OF FEE PAYMENT : 8
EP2759700 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181011 YEAR OF FEE PAYMENT : 8
EP2759700 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 8
EP2759700 B1	20311130	PEXP		Calculated Patent Term Expiry	
EP2759701 A1	20140730	LSPB	+	published / reissued	
EP2759701 A1	20140730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140214
EP2759701 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160914 YEAR OF FEE PAYMENT : 5
EP2759701 A1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160916 YEAR OF FEE PAYMENT : 5
EP2759701 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160926

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 5
EP2759701 A4	20151104	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20151005
EP2759701 A4	20160504	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160406
EP2759701 B1	20160817	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2759701 B1	20160817	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2759701 B1	20160831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2759701 B1	20160907	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2759701 B1	20160915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 821382 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160915
EP2759701 B1	20160926	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2759701 B1	20160929	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012022024 COUNTRY OF REF DOCUMENT : DE
EP2759701 B1	20161227	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2759701 B1	20170115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 821382 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160817
EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817

EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161117
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161118
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161219
EP2759701 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170428	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2759701 B1	20170518	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012022024 COUNTRY OF REF DOCUMENT : DE
EP2759701 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161117
EP2759701 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817

EP2759701 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170628	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2759701 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170726	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170518
EP2759701 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2759701 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160914
EP2759701 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2759701 B1	20170810	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2759701 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160914
EP2759701 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 6
EP2759701 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170905 YEAR OF FEE PAYMENT : 6
EP2759701 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170913 YEAR OF FEE PAYMENT : 6
EP2759701 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO

					LAPSED DATE : 20120914
EP2759701 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160930
EP2759701 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20180813	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2759701 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2759701 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180904 YEAR OF FEE PAYMENT : 7
EP2759701 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180813 YEAR OF FEE PAYMENT : 7
EP2759701 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180912 YEAR OF FEE PAYMENT : 7
EP2759701 B1	20320914	PEXP		Calculated Patent Term Expiry	
EP2759702 A1	20140730	LSPB	+	published / reissued	
EP2759702 A1	20140730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20121221
EP2759702 A4	20151111	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20151008
EP2759702 A4	20170426	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170324
EP2759702 A4	20171213	LSGT	+INTG	INTENTION TO	EFFECTIVE DATE : 20171117

				GRANT ANNOUNCED	
EP2759702 B1	20180425	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2759702 B1	20180425	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2759702 B1	20180430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2759702 B1	20180515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 993210 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180515
EP2759702 B1	20180516	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2759702 B1	20180524	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012045694 COUNTRY OF REF DOCUMENT : DE
EP2759702 B1	20180910	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2759702 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180725
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20180725
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180726
EP2759702 B1	20181215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 993210 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180425
EP2759702 B1	20181231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180827
EP2759702 B1	20190128	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012045694 COUNTRY OF REF DOCUMENT : DE
EP2759702 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190403	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190128
EP2759702 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190211 YEAR OF FEE PAYMENT : 8
EP2759702 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190215 YEAR OF FEE PAYMENT : 8
EP2759702 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	: FR PAYMENT DATE : 20190221 YEAR OF FEE PAYMENT : 8
EP2759702 B1	20190930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2759702 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190224
EP2759702 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20191127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2759702 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180425
EP2759702 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190228
EP2759702 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190228
EP2759702 B1	20320224	PEXP		Calculated Patent Term Expiry	
EP2786014 A1	20141008	LSPB	+	published / reissued	
EP2786014 A1	20141008	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130128
EP2786014 A1	20150805	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20150707
EP2786014 A1	20160309	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160210
EP2786014 B1	20160518	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2786014 B1	20160518	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2786014 B1	20160531	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2786014 B1	20160615	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2786014 B1	20160615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 800721 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160615
EP2786014 B1	20160707	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012018510

					COUNTRY OF REF DOCUMENT : DE
EP2786014 B1	20160926	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2786014 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160818
EP2786014 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 800721 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160518
EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160819
EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518

EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160919
EP2786014 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170112	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2786014 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518

EP2786014 B1	20170221	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012018510 COUNTRY OF REF DOCUMENT : DE
EP2786014 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170426	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170221
EP2786014 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170112 YEAR OF FEE PAYMENT : 6
EP2786014 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170207 YEAR OF FEE PAYMENT : 6
EP2786014 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170215 YEAR OF FEE PAYMENT : 6
EP2786014 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2786014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228

EP2786014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2786014 B1	20171129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2786014 B1	20171229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170215
EP2786014 B1	20180111	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2786014 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170215
EP2786014 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180214 YEAR OF FEE PAYMENT : 7
EP2786014 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180130 YEAR OF FEE PAYMENT : 7
EP2786014 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180111 YEAR OF FEE PAYMENT : 7
EP2786014 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170215
EP2786014 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190111 YEAR OF FEE PAYMENT : 8
EP2786014 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190205 YEAR OF FEE PAYMENT : 8
EP2786014 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190213 YEAR OF FEE PAYMENT : 8
EP2786014 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120215
EP2786014 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2786014 B1	20320215	PEXP		Calculated Patent Term Expiry	
EP2786018 A2	20141008	LSPB	+	published / reissued	
EP2786018 A2	20141008	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140117
EP2786018 A2	20141126	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20141029
EP2786018 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160629 YEAR OF FEE PAYMENT : 5
EP2786018 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160622 YEAR OF FEE PAYMENT : 5
EP2786018 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160516 YEAR OF FEE PAYMENT : 5
EP2786018 B1	20150107	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2786018 B1	20150107	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2786018 B1	20150115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2786018 B1	20150128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2786018 B1	20150215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 705923 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150215
EP2786018 B1	20150226	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012004843 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150226
EP2786018 B1	20150520	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20150107
EP2786018 B1	20150615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 705923 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF

					DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150107
EP2786018 B1	20150625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150407
EP2786018 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150407
EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107

EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150507
EP2786018 B1	20151008	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012004843 COUNTRY OF REF DOCUMENT : DE
EP2786018 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20151030	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20151216	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20151008
EP2786018 B1	20151231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20160129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2786018 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150629
EP2786018 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20160323	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2786018 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150630
EP2786018 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150629
EP2786018 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150630
EP2786018 B1	20160516	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 5
EP2786018 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107

EP2786018 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20170511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2786018 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20120629
EP2786018 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 6
EP2786018 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170511 YEAR OF FEE PAYMENT : 6
EP2786018 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170621 YEAR OF FEE PAYMENT : 6
EP2786018 B1	20180511	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2786018 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107

EP2786018 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180619 YEAR OF FEE PAYMENT : 7
EP2786018 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180511 YEAR OF FEE PAYMENT : 7
EP2786018 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP2786018 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180627 YEAR OF FEE PAYMENT : 7
EP2786018 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190618 YEAR OF FEE PAYMENT : 8
EP2786018 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190510 YEAR OF FEE PAYMENT : 8
EP2786018 B1	20320629	PEXP		Calculated Patent Term Expiry	
GB201020264 A0	20120314	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB2480683 A1	20111130	LSPB	+	published / reissued	
GB2480683 A1	20110803	LSAS	COOA	CHANGE IN APPLICANT'S NAME OR OWNERSHIP OF THE APPLICATION	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES LTD OLDPARTY : FORMER OWNER: ARTEMIS INTELLIGENT POWER LIMITED
GB2480683 B2	20140910	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2480683 B2	20300528	PEXP		Calculated Patent Term Expiry	
GB2480684 A1	20111130	LSPB	+	published / reissued	
GB2480684 A1	20110803	LSAS	COOA	CHANGE IN APPLICANT'S NAME OR OWNERSHIP OF THE APPLICATION	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES LTD OLDPARTY : FORMER OWNER: ARTEMIS INTELLIGENT POWER LIMITED
GB2480684 A1	20171115	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
GB2485987 A1	20120606	LSPB	+	published / reissued	
GB2485987 A1	20130417	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
IN01182DN2011 A	20160831	LSPB	+	published / reissued	
IN01188DN2011 A	20160831	LSPB	+	published / reissued	
IN01190DN2011 A	20160831	LSPB	+	published / reissued	
IN01191DN2011 A	20160831	LSPB	+	published / reissued	
IN01192DN2011 A	20160831	LSPB	+	published / reissued	
IN03058DN2012 A	20150731	LSPB	+	published / reissued	
IN03061DN2012 A	20150731	LSPB	+	published / reissued	

IN03062DN2012 A	20150731	LSPB	+	published / reissued	
IN03967KN2011 A	20141121	LSPB	+	published / reissued	
IN03974KN2011 A	20141121	LSPB	+	published / reissued	
JP2012137311 A1	20140728	LSPB	+	published / reissued	
JP2012137370 A1	20140728	LSPB	+	published / reissued	
JP2012137370 A1	20170516	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2012137371 A1	20140728	LSPB	+	published / reissued	
JP2012137371 A1	20170822	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2012522185 T2	20120920	LSPB	+	published / reissued	
JP2012522185 T2	20130719	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012522185 T2	20130724	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130723
JP2012522185 T2	20130822	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130819
JP2012522185 T2	20130823	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2012522185 T2	20130823	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5347066 COUNTRY OF REF DOCUMENT : JP
JP2012522186 T2	20120920	LSPB	+	published / reissued	
JP2012522186 T2	20130731	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130730
JP2012522186 T2	20131217	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012522186 T2	20140108	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140107
JP2012522186 T2	20140123	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140114
JP2012522186 T2	20140124	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2012522186 T2	20140124	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5460865 COUNTRY OF REF DOCUMENT : JP
JP2013021488 A1	20150305	LSPB	+	published / reissued	
JP2013042251 A1	20150326	LSPB	+	published / reissued	
JP2013042251 A1	20170411	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2013042252 A1	20150326	LSPB	+	published / reissued	
JP2013042252 A1	20170411	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2013042279 A1	20150326	LSPB	+	published / reissued	
JP2013042279 A1	20171010	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2013042385 A1	20150326	LSPB	+	published / reissued	
JP2013042621 A1	20150326	LSPB	+	published / reissued	

JP2013042621 A1	20170822	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2013080322 A1	20150427	LSPB	+	published / reissued	
JP2013080322 A1	20170516	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2013501867 T2	20130117	LSPB	+	published / reissued	
JP2013501867 T2	20130130	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130129
JP2013501867 T2	20130330	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130329
JP2013501867 T2	20130731	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130730
JP2013501867 T2	20131001	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130930
JP2013501867 T2	20140203	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013501867 T2	20140213	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140212
JP2013501867 T2	20140320	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140312
JP2013501868 T2	20130117	LSPB	+	published / reissued	
JP2013501868 T2	20130123	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130122
JP2013501868 T2	20130315	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130314
JP2013501868 T2	20130325	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130314
JP2013501868 T2	20130918	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013501868 T2	20130925	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130924
JP2013501868 T2	20131031	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20131022
JP2013501868 T2	20131101	LSGT	+R151	WRITTEN NOTIFICATION OF PATENT OR UTILITY MODEL REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: R151 REF DOCUMENT NUMBER : 5398746 COUNTRY OF REF DOCUMENT : JP
JP2013501890 T2	20130117	LSPB	+	published / reissued	
JP2013501890 T2	20130828	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130827
JP2013501890 T2	20131029	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131028
JP2013501890 T2	20140206	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013501890 T2	20140213	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140212

JP2013501890 T2	20140320	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140312
JP2013501891 T2	20130117	LSPB	+	published / reissued	
JP2013501891 T2	20130828	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130827
JP2013501891 T2	20131029	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131028
JP2013501891 T2	20140206	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013501891 T2	20140213	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140212
JP2013501891 T2	20140320	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140312
JP2013501901 T2	20130117	LSPB	+	published / reissued	
JP2013501901 T2	20130321	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130319
JP2013501901 T2	20130521	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130520
JP2013501901 T2	20130626	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013501901 T2	20130703	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130702
JP2013501901 T2	20130801	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130726
JP2013501901 T2	20130802	LSGT	+R151	WRITTEN NOTIFICATION OF PATENT OR UTILITY MODEL REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: R151 REF DOCUMENT NUMBER : 5331250 COUNTRY OF REF DOCUMENT : JP
JP2013503279 T2	20130131	LSPB	+	published / reissued	
JP2013503279 T2	20130530	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130529
JP2013503279 T2	20140402	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140401
JP2013503279 T2	20140528	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140527
JP2013503279 T2	20140612	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013503279 T2	20140623	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140620
JP2013503279 T2	20140724	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140715
JP2013508592 T2	20130307	LSPB	+	published / reissued	
JP2013508592 T2	20130405	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130404
JP2013508592 T2	20130828	LSGT	+TRDD	DECISION OF GRANT	

				OR REJECTION WRITTEN	
JP2013508592 T2	20130904	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130903
JP2013508592 T2	20131010	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20131001
JP2013508592 T2	20131011	LSGT	+R151	WRITTEN NOTIFICATION OF PATENT OR UTILITY MODEL REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: R151 REF DOCUMENT NUMBER : 5383714 COUNTRY OF REF DOCUMENT : JP
JP2013508593 T2	20130307	LSPB	+	published / reissued	
JP2013508593 T2	20130409	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130408
JP2013508593 T2	20130828	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013508593 T2	20130904	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130903
JP2013508593 T2	20131010	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20131001
JP2013508593 T2	20131011	LSGT	+R151	WRITTEN NOTIFICATION OF PATENT OR UTILITY MODEL REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: R151 REF DOCUMENT NUMBER : 5383715 COUNTRY OF REF DOCUMENT : JP
JP2013509518 T2	20130314	LSPB	+	published / reissued	
JP2013509518 T2	20130218	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013509518 T2	20130227	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130226
JP2013509518 T2	20130328	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130325
JP2013509518 T2	20130329	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2013520596 T2	20130606	LSPB	+	published / reissued	
JP2013520596 T2	20130828	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130827
JP2013520596 T2	20131029	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131028
JP2013520596 T2	20140206	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013520596 T2	20140213	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140212
JP2013520596 T2	20140320	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140312
JP2013522510 T2	20130613	LSPB	+	published / reissued	
JP2013522510 T2	20130828	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130827
JP2013522510 T2	20131029	LSRE	A521	WRITTEN	TEXT : JAPANESE

				AMENDMENT	INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131028
JP2013522510 T2	20140206	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013522510 T2	20140213	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140212
JP2013522510 T2	20140320	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140312
JP2013537789 T2	20131003	LSPB	+	published / reissued	
JP2013537789 T2	20140307	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013537789 T2	20140312	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140311
JP2013537789 T2	20140417	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140409
JP2013545939 T2	20131226	LSPB	+	published / reissued	
JP2013545939 T2	20140205	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140204
JP2013545939 T2	20140405	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140404
JP2013545939 T2	20141006	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20141003
JP2013545939 T2	20141122	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141121
JP2013545939 T2	20150528	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013545939 T2	20150608	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150605
JP2013545939 T2	20150709	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150630
JP2014002296 A1	20160530	LSPB	+	published / reissued	
JP2014002296 A1	20170822	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2014002297 A1	20160530	LSPB	+	published / reissued	
JP2014002297 A1	20170822	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP2014504343 T2	20140220	LSPB	+	published / reissued	
JP2014504343 T2	20140422	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140421
JP2014504343 T2	20140917	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014504343 T2	20140922	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140919
JP2014504343 T2	20141023	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20141014
JP2014504343 T2	20141024	LSGT	+R151	WRITTEN NOTIFICATION OF	TEXT : JAPANESE INTERMEDIATE CODE: R151

				PATENT OR UTILITY MODEL REGISTRATION	REF DOCUMENT NUMBER : 5634534 COUNTRY OF REF DOCUMENT : JP
JP2014521859 T2	20140828	LSPB	+	published / reissued	
JP2014521859 T2	20140519	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20140130
JP2014521859 T2	20140901	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140829
JP2014521859 T2	20141111	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141027
JP2014521859 T2	20150323	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150320
JP2014521859 T2	20150514	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150514
JP2014521859 T2	20151001	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014521859 T2	20151013	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20151009
JP2014521859 T2	20151112	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20151102
JP2014526006 T2	20141002	LSPB	+	published / reissued	
JP2014526006 T2	20141006	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20141003
JP2014526006 T2	20141203	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141202
JP2014526006 T2	20150601	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150529
JP2014526006 T2	20150723	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150723
JP2014526006 T2	20151130	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014526006 T2	20151207	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20151204
JP2014526006 T2	20160104	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20151222
JP2014529280 T2	20141030	LSPB	+	published / reissued	
JP2014529280 T2	20141208	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20141205
JP2014529280 T2	20150106	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150106
JP2014529280 T2	20150626	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014529280 T2	20150706	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150703
JP2014529280 T2	20150806	LSFE	+A61	FIRST PAYMENT OF	TEXT : JAPANESE

				ANNUAL FEES (DURING GRANT PROCEDURE)	INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150728
JP2014529280 T2	20150807	LSGT	+R151	WRITTEN NOTIFICATION OF PATENT OR UTILITY MODEL REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: R151 REF DOCUMENT NUMBER : 5788078 COUNTRY OF REF DOCUMENT : JP
JP4950367 B1	20120613	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4950367 B1	20120209	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4950367 B1	20120220	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120217
JP4950367 B1	20120223	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP4950367 B1	20120313	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4950367 B1	20120315	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120308
JP4950367 B1	20120316	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4950367 B1	20120316	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP4950367 B1	20120319	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4950367 B1	20150219	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950367 B1	20150428	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950367 B1	20160225	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950367 B1	20160301	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950367 B1	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950367 B1	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950367 B1	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950367 B1	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950367 B1	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950367 B1	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950367 B1	20310810	PEXP		Calculated Patent Term Expiry	
JP4950368 B1	20120613	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4950368 B1	20120216	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4950368 B1	20120227	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120224
JP4950368 B1	20120301	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01

JP4950368 B1	20120313	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4950368 B1	20120315	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120308
JP4950368 B1	20120316	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4950368 B1	20120316	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP4950368 B1	20120319	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4950368 B1	20150219	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950368 B1	20150428	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950368 B1	20160225	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950368 B1	20160301	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950368 B1	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950368 B1	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950368 B1	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950368 B1	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950368 B1	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4950368 B1	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4950368 B1	20310405	PEXP		Calculated Patent Term Expiry	
JP4969712 B1	20120704	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4969712 B1	20120309	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4969712 B1	20120309	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4969712 B1	20120319	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120316
JP4969712 B1	20120322	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP4969712 B1	20120322	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP4969712 B1	20120410	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4969712 B1	20120412	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120403
JP4969712 B1	20120412	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120403
JP4969712 B1	20120413	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3

JP4969712 B1	20120413	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4969712 B1	20120413	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP4969712 B1	20120416	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4969712 B1	20120416	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4969712 B1	20150319	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4969712 B1	20150324	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4969712 B1	20160407	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4969712 B1	20160419	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4969712 B1	20170406	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4969712 B1	20170411	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4969712 B1	20180405	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4969712 B1	20180424	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4969712 B1	20190328	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4969712 B1	20190402	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4969712 B1	20310922	PEXP		Calculated Patent Term Expiry	
JP4995357 B1	20120808	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4995357 B1	20120416	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4995357 B1	20120416	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4995357 B1	20120423	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120420
JP4995357 B1	20120426	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP4995357 B1	20120426	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP4995357 B1	20120515	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4995357 B1	20120517	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120509
JP4995357 B1	20120517	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120509
JP4995357 B1	20120518	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4995357 B1	20120518	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3

JP4995357 B1	20120518	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP4995357 B1	20120521	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4995357 B1	20120521	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4995357 B1	20150423	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4995357 B1	20150428	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4995357 B1	20160421	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4995357 B1	20160621	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4995357 B1	20170508	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4995357 B1	20170516	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4995357 B1	20180426	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4995357 B1	20180515	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4995357 B1	20190509	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4995357 B1	20190514	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP4995357 B1	20310922	PEXP		Calculated Patent Term Expiry	
JP5232873 B2	20130710	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5232873 B2	20130228	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5232873 B2	20130326	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5232873 B2	20130329	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5232873 B2	20160225	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5232873 B2	20160301	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5232873 B2	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5232873 B2	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5232873 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5232873 B2	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5232873 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5232873 B2	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5232873 B2	20301130	PEXP		Calculated Patent Term Expiry	
JP5281723 B1	20130904	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5281723 B1	20130419	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5281723 B1	20130419	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5281723 B1	20130501	LSGT	+A01	WRITTEN DECISION	TEXT : JAPANESE

				TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130430
JP5281723 B1	20130502	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5281723 B1	20130528	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5281723 B1	20130530	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130524
JP5281723 B1	20130530	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130524
JP5281723 B1	20130531	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5281723 B1	20160421	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5281723 B1	20160621	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5281723 B1	20170508	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5281723 B1	20170516	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5281723 B1	20180426	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5281723 B1	20180515	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5281723 B1	20190509	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5281723 B1	20190514	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5281723 B1	20311130	PEXP		Calculated Patent Term Expiry	
JP5331250 B2	20131030	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5331250 B2	20130704	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5331250 B2	20130730	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5331250 B2	20130802	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5331250 B2	20160721	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5331250 B2	20160726	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5331250 B2	20170608	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5331250 B2	20170613	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5331250 B2	20180802	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5331250 B2	20180807	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5331250 B2	20190801	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5331250 B2	20190829	LSFE	R21	特許料納付書 (補充) (Patent fee payment form (replenishment))	
JP5331250 B2	20310530	PEXP		Calculated Patent Term Expiry	
JP5347066 B2	20131120	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5347066 B2	20130725	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5347066 B2	20130820	LSFE	R100	特許料納付書 (Patent fee payment form)	

JP5347066 B2	20160818	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5347066 B2	20160823	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5347066 B2	20170713	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5347066 B2	20170718	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5347066 B2	20170725	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5347066 B2	20170802	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5347066 B2	20180802	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5347066 B2	20180807	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5347066 B2	20190801	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5347066 B2	20190829	LSFE	R21	特許料納付書 (補充) (Patent fee payment form (replenishment))	
JP5347066 B2	20190917	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	EFFECTIVE DATE : 20190927
JP5347066 B2	20310530	PEXP		Calculated Patent Term Expiry	
JP5358020 B1	20131204	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5358020 B1	20130808	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5358020 B1	20130903	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5358020 B1	20130906	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5358020 B1	20160825	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5358020 B1	20160830	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5358020 B1	20170817	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5358020 B1	20170822	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5358020 B1	20180830	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5358020 B1	20180904	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5358020 B1	20310922	PEXP		Calculated Patent Term Expiry	
JP5358020 B2	20131204	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5358020 B2	20130731	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5358020 B2	20130807	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130806
JP5358020 B2	20310922	PEXP		Calculated Patent Term Expiry	
JP5383714 B2	20140108	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5383714 B2	20130206	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130205

JP5383714 B2	20130905	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5383714 B2	20131008	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5383714 B2	20131011	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5383714 B2	20160923	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5383714 B2	20161115	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5383714 B2	20171005	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5383714 B2	20171010	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5383714 B2	20181004	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5383714 B2	20181009	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5383714 B2	20191003	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20190926
JP5383714 B2	20191008	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	EFFECTIVE DATE : 20191018
JP5383714 B2	20301130	PEXP		Calculated Patent Term Expiry	
JP5383715 B2	20140108	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5383715 B2	20130206	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130205
JP5383715 B2	20130905	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5383715 B2	20131008	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5383715 B2	20131011	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5383715 B2	20160923	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5383715 B2	20161115	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5383715 B2	20171005	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5383715 B2	20171010	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5383715 B2	20181004	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5383715 B2	20181009	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5383715 B2	20191003	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20190926
JP5383715 B2	20191008	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	EFFECTIVE DATE : 20191018
JP5383715 B2	20301130	PEXP		Calculated Patent Term Expiry	
JP5398746 B2	20140129	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5398746 B2	20130926	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5398746 B2	20131029	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5398746 B2	20131101	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5398746 B2	20161020	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5398746 B2	20161025	LSFE	R2501	年金領収書 (一括)	

				(Pension receipt (bulk))	
JP5398746 B2	20171005	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5398746 B2	20171010	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5398746 B2	20181101	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5398746 B2	20181106	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5398746 B2	20191031	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191028
JP5398746 B2	20191105	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	EFFECTIVE DATE : 20191115
JP5398746 B2	20301130	PEXP		Calculated Patent Term Expiry	
JP5460865 B2	20140402	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5460865 B2	20140109	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5460865 B2	20140121	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5460865 B2	20140124	LSGT	+R150	特許証 (Patent certificate)	
JP5460865 B2	20170223	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5460865 B2	20170228	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5460865 B2	20170725	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5460865 B2	20170802	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5460865 B2	20180111	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5460865 B2	20180116	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5460865 B2	20181227	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5460865 B2	20190108	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5460865 B2	20191226	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191224
JP5460865 B2	20310530	PEXP		Calculated Patent Term Expiry	
JP5501982 B2	20140528	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5501982 B2	20140220	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5501982 B2	20140318	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5501982 B2	20140320	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5501982 B2	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5501982 B2	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5501982 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5501982 B2	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5501982 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5501982 B2	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt	

				(bulk))
JP5501982 B2	20301130	PEXP		Calculated Patent Term Expiry
JP5502189 B2	20140528	LSGT	+	granted / extensions (spc, cpc, pte)
JP5502189 B2	20140220	LSGT	+A01	特許査定書 (Decision of patent grant)
JP5502189 B2	20140318	LSFE	R100	特許料納付書 (Patent fee payment form)
JP5502189 B2	20140320	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))
JP5502189 B2	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502189 B2	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502189 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502189 B2	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502189 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502189 B2	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502189 B2	20311130	PEXP		Calculated Patent Term Expiry
JP5502190 B2	20140528	LSGT	+	granted / extensions (spc, cpc, pte)
JP5502190 B2	20140220	LSGT	+A01	特許査定書 (Decision of patent grant)
JP5502190 B2	20140318	LSFE	R100	特許料納付書 (Patent fee payment form)
JP5502190 B2	20140320	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))
JP5502190 B2	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502190 B2	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502190 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502190 B2	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502190 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502190 B2	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502190 B2	20311130	PEXP		Calculated Patent Term Expiry
JP5502201 B2	20140528	LSGT	+	granted / extensions (spc, cpc, pte)
JP5502201 B2	20140220	LSGT	+A01	特許査定書 (Decision of patent grant)
JP5502201 B2	20140318	LSFE	R100	特許料納付書 (Patent fee payment form)
JP5502201 B2	20140320	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))
JP5502201 B2	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502201 B2	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502201 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5502201 B2	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5502201 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)

JP5502201 B2	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5502201 B2	20310530	PEXP		Calculated Patent Term Expiry	
JP5502202 B2	20140528	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5502202 B2	20140220	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5502202 B2	20140318	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5502202 B2	20140320	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5502202 B2	20161215	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5502202 B2	20161227	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5502202 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5502202 B2	20180306	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5502202 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5502202 B2	20190305	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5502202 B2	20310530	PEXP		Calculated Patent Term Expiry	
JP5518180 B1	20140611	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5518180 B1	20140306	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5518180 B1	20140408	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5518180 B1	20140411	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5518180 B1	20170406	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5518180 B1	20170411	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5518180 B1	20180405	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5518180 B1	20180424	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5518180 B1	20190328	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5518180 B1	20190402	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5518180 B1	20310922	PEXP		Calculated Patent Term Expiry	
JP5524409 B2	20140618	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5524409 B2	20140313	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5524409 B2	20140415	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5524409 B2	20140418	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5524409 B2	20170406	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5524409 B2	20170411	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5524409 B2	20180405	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5524409 B2	20180424	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	

JP5524409 B2	20190328	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5524409 B2	20190402	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5524409 B2	20320224	PEXP		Calculated Patent Term Expiry	
JP5550781 B1	20140716	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5550781 B1	20140424	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5550781 B1	20140527	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5550781 B1	20140530	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5550781 B1	20170508	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5550781 B1	20170516	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5550781 B1	20180426	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5550781 B1	20180515	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5550781 B1	20190509	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5550781 B1	20190514	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5550781 B1	20320224	PEXP		Calculated Patent Term Expiry	
JP5583204 B2	20140903	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5583204 B2	20140626	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5583204 B2	20140722	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5583204 B2	20140725	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5583204 B2	20170608	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5583204 B2	20170613	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5583204 B2	20180628	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5583204 B2	20180703	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5583204 B2	20190704	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5583204 B2	20190709	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5583204 B2	20311130	PEXP		Calculated Patent Term Expiry	
JP5615465 B1	20141029	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5615465 B1	20140821	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5615465 B1	20140916	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5615465 B1	20140919	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5615465 B1	20170817	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5615465 B1	20170822	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5615465 B1	20180830	LSFE	R20	特許料納付書 (Patent fee payment form)	

JP5615465 B1	20180904	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5615465 B1	20190905	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5615465 B1	20190910	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5615465 B1	20320914	PEXP		Calculated Patent Term Expiry	
JP5615466 B1	20141029	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5615466 B1	20140821	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5615466 B1	20140916	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5615466 B1	20140919	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5615466 B1	20170817	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5615466 B1	20170822	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5615466 B1	20180830	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5615466 B1	20180904	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5615466 B1	20190905	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5615466 B1	20190910	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5615466 B1	20320914	PEXP		Calculated Patent Term Expiry	
JP5620009 B1	20141105	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5620009 B1	20140828	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5620009 B1	20140922	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5620009 B1	20140926	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5620009 B1	20170817	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5620009 B1	20170822	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5620009 B1	20180830	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5620009 B1	20180904	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5620009 B1	20320914	PEXP		Calculated Patent Term Expiry	
JP5634534 B2	20141203	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5634534 B2	20140219	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140218
JP5634534 B2	20140925	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5634534 B2	20141021	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5634534 B2	20141024	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5634534 B2	20171005	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5634534 B2	20171010	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250

JP5634534 B2	20181004	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5634534 B2	20181009	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5634534 B2	20191003	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20190926
JP5634534 B2	20191008	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	EFFECTIVE DATE : 20191018
JP5634534 B2	20320215	PEXP		Calculated Patent Term Expiry	
JP5634595 B1	20141203	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5634595 B1	20140925	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5634595 B1	20141021	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5634595 B1	20141024	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5634595 B1	20171005	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5634595 B1	20171010	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5634595 B1	20181004	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5634595 B1	20181009	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5634595 B1	20311130	PEXP		Calculated Patent Term Expiry	
JP5774089 B2	20150902	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5774089 B2	20150611	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5774089 B2	20150707	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5774089 B2	20150710	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5774089 B2	20180628	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5774089 B2	20180703	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5774089 B2	20190704	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5774089 B2	20190709	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5774089 B2	20310218	PEXP		Calculated Patent Term Expiry	
JP5788078 B2	20150930	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5788078 B2	20150709	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5788078 B2	20150804	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5788078 B2	20150807	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP5788078 B2	20180802	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5788078 B2	20180807	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP5788078 B2	20190801	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5788078 B2	20190829	LSFE	R21	特許料納付書 (補充) (Patent fee payment form (replenishment))	
JP5788078 B2	20190917	LSFE	R2501	年金領収書 (一括) (Pension receipt	EFFECTIVE DATE : 20190927

				(bulk))
JP5788078 B2	20320605	PEXP		Calculated Patent Term Expiry
JP5836478 B2	20151224	LSGT	+	granted / extensions (spc, cpc, pte)
JP5836478 B2	20151015	LSGT	+A01	特許査定書 (Decision of patent grant)
JP5836478 B2	20151110	LSFE	R100	特許料納付書 (Patent fee payment form)
JP5836478 B2	20151113	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))
JP5836478 B2	20181101	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5836478 B2	20181106	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5836478 B2	20320629	PEXP		Calculated Patent Term Expiry
JP5863944 B2	20160217	LSGT	+	granted / extensions (spc, cpc, pte)
JP5863944 B2	20151210	LSGT	+A01	特許査定書 (Decision of patent grant)
JP5863944 B2	20151228	LSFE	R100	特許料納付書 (Patent fee payment form)
JP5863944 B2	20160108	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))
JP5863944 B2	20181227	LSFE	R20	特許料納付書 (Patent fee payment form)
JP5863944 B2	20190108	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))
JP5863944 B2	20320629	PEXP		Calculated Patent Term Expiry
KR101278816 B1	20130625	LSGT	+	granted / extensions (spc, cpc, pte)
KR101278816 B1	20110429	LSES	A201	REQUEST FOR EXAMINATION
KR101278816 B1	20130416	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR101278816 B1	20130619	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR101278816 B1	20160620	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR101278816 B1	20301130	PEXP		Calculated Patent Term Expiry
KR101282429 B1	20130704	LSGT	+	granted / extensions (spc, cpc, pte)
KR101282429 B1	20110429	LSES	A201	REQUEST FOR EXAMINATION
KR101282429 B1	20130502	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR101282429 B1	20130628	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR101282429 B1	20160629	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR101282429 B1	20301130	PEXP		Calculated Patent Term Expiry
KR101282540 B1	20130704	LSGT	+	granted / extensions (spc, cpc, pte)
KR101282540 B1	20110429	LSES	A201	REQUEST FOR EXAMINATION
KR101282540 B1	20130502	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR101282540 B1	20130628	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR101282540 B1	20160629	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR101282540 B1	20301130	PEXP		Calculated Patent Term Expiry
KR101296054 B1	20130812	LSGT	+	granted / extensions

				(spc, cpc, pte)	
KR101296054 B1	20121227	LSES	A201	REQUEST FOR EXAMINATION	
KR101296054 B1	20121228	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR101296054 B1	20160721	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160721 YEAR OF FEE PAYMENT : 4
KR101296054 B1	20170720	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170720 YEAR OF FEE PAYMENT : 5
KR101296054 B1	20180717	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180717 YEAR OF FEE PAYMENT : 6
KR101296054 B1	20310922	PEXP		Calculated Patent Term Expiry	
KR101331627 B1	20131120	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101331627 B1	20111014	LSES	A201	REQUEST FOR EXAMINATION	
KR101331627 B1	20111018	LSRE	AMND	AMENDMENT	
KR101331627 B1	20161104	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20161104 YEAR OF FEE PAYMENT : 4
KR101331627 B1	20171011	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20171011 YEAR OF FEE PAYMENT : 5
KR101331627 B1	20190828	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190828 YEAR OF FEE PAYMENT : 7
KR101331627 B1	20310530	PEXP		Calculated Patent Term Expiry	
KR101331686 B1	20131120	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101331686 B1	20111014	LSES	A201	REQUEST FOR EXAMINATION	
KR101331686 B1	20111018	LSRE	AMND	AMENDMENT	
KR101331686 B1	20161104	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20161104 YEAR OF FEE PAYMENT : 4
KR101331686 B1	20171011	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20171011 YEAR OF FEE PAYMENT : 5
KR101331686 B1	20190828	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190828 YEAR OF FEE PAYMENT : 7
KR101331686 B1	20310530	PEXP		Calculated Patent Term Expiry	
KR20120018287 A	20120302	LSPB	+	published / reissued	
KR20120018287 A	20130115	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120018287 A	20130415	LSRE	AMND	AMENDMENT	
KR20120018287 A	20130711	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20120018287 A	20131011	LSRE	AMND	AMENDMENT	
KR20120018287 A	20131107	LSGT	+X701	DECISION TO GRANT (AFTER RE-EXAMINATION)	
KR20120018287 A	20131114	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20120018288 A	20120302	LSPB	+	published / reissued	
KR20120018288 A	20130115	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120018288 A	20130415	LSRE	AMND	AMENDMENT	
KR20120018288 A	20130711	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20120018288 A	20131011	LSRE	AMND	AMENDMENT	
KR20120018288 A	20131107	LSGT	+X701	DECISION TO GRANT (AFTER RE-EXAMINATION)	

KR20120018288 A	20131114	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20120090758 A	20120817	LSPB	+	published / reissued
KR20120090758 A	20110429	LSES	A201	REQUEST FOR EXAMINATION
KR20120090758 A	20130801	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20120090759 A	20120817	LSPB	+	published / reissued
KR20120090760 A	20120817	LSPB	+	published / reissued
KR20120090761 A	20120817	LSPB	+	published / reissued
KR20120094414 A	20120824	LSPB	+	published / reissued
KR20120094414 A	20110429	LSES	A201	REQUEST FOR EXAMINATION
KR20120094414 A	20120928	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20120094414 A	20130502	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20120139667 A	20121227	LSPB	+	published / reissued
KR20120139667 A	20120426	LSES	A201	REQUEST FOR EXAMINATION
KR20120139667 A	20130729	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20120139667 A	20131029	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20120139669 A	20121227	LSPB	+	published / reissued
KR20120139669 A	20120426	LSES	A201	REQUEST FOR EXAMINATION
KR20120139669 A	20130630	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20130016332 A	20130214	LSPB	+	published / reissued
KR20130016332 A	20121108	LSES	A201	REQUEST FOR EXAMINATION
KR20130016332 A	20131118	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130016332 A	20140221	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130018954 A	20130225	LSPB	+	published / reissued
KR20130018954 A	20130228	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130018954 A	20130611	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20130018954 A	20130806	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20130026439 A	20130313	LSPB	+	published / reissued
KR20130026439 A	20121108	LSES	A201	REQUEST FOR EXAMINATION
KR20130026439 A	20140113	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130026439 A	20140326	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130026440 A	20130313	LSPB	+	published / reissued
KR20130026440 A	20121108	LSES	A201	REQUEST FOR EXAMINATION
KR20130026440 A	20131118	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130026440 A	20140221	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130031303 A	20130328	LSPB	+	published / reissued
KR20130031303 A	20121227	LSES	A201	REQUEST FOR

				EXAMINATION
KR20130031303 A	20131213	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130031303 A	20140305	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130033431 A	20130403	LSPB	+	published / reissued
KR20130033431 A	20130201	LSES	A201	REQUEST FOR EXAMINATION
KR20130033431 A	20140127	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130033431 A	20140418	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130047699 A	20130508	LSPB	+	published / reissued
KR20130047699 A	20121227	LSES	A201	REQUEST FOR EXAMINATION
KR20130047699 A	20131213	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130047699 A	20140305	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130050274 A	20130515	LSPB	+	published / reissued
KR20130050274 A	20120629	LSES	A201	REQUEST FOR EXAMINATION
KR20130050274 A	20130814	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130050274 A	20131028	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130050310 A	20130515	LSPB	+	published / reissued
KR20130050310 A	20121228	LSES	A201	REQUEST FOR EXAMINATION
KR20130050310 A	20131213	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130050310 A	20140226	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130053416 A	20130523	LSPB	+	published / reissued
KR20130053416 A	20121227	LSES	A201	REQUEST FOR EXAMINATION
KR20130053416 A	20140207	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130053416 A	20140424	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130059309 A	20130605	LSPB	+	published / reissued
KR20130059309 A	20120426	LSES	A201	REQUEST FOR EXAMINATION
KR20130059309 A	20130729	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130059309 A	20131030	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130069720 A	20130626	LSPB	+	published / reissued
KR20130069720 A	20130125	LSES	A201	REQUEST FOR EXAMINATION
KR20130069720 A	20140520	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20130095657 A	20130828	LSPB	+	published / reissued
KR20130095657 A	20121227	LSES	A201	REQUEST FOR EXAMINATION
KR20130095657 A	20131213	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130095657 A	20140305	LSRV	-E601	DECISION TO REFUSE APPLICATION

US2012061958 AA	20120315	LSPB	+	published / reissued	
US2012061958 AA	20130109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012061969 AA	20120315	LSPB	+	published / reissued	
US2012061969 AA	20121229	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012063898 AA	20120315	LSPB	+	published / reissued	
US2012063898 AA	20130306	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012063929 AA	20120315	LSPB	+	published / reissued	
US2012096844 AA	20120426	LSPB	+	published / reissued	
US2012096844 AA	20150722	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012104752 AA	20120503	LSPB	+	published / reissued	
US2012117958 AA	20120517	LSPB	+	published / reissued	
US2012117958 AA	20111223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARTEMIS INTELLIGENT POWER LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CALDWELL, NIALL JAMES; DUMNOV, DANIIL SERGEEVICH; FIELDING, MICHAEL RICHARD; REEL/FRAME:027440/0817 EFFECTIVE DATE : 20110826
US2012117958 AA	20160331	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012124984 AA	20120524	LSPB	+	published / reissued	
US2012124984 AA	20131120	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012255291 AA	20121011	LSPB	+	published / reissued	
US2012255291 AA	20131120	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012257970 AA	20121011	LSPB	+	published / reissued	
US2012257970 AA	20130205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MORII, YOSHIYUKI; HAMANO, FUMIO; REEL/FRAME:029753/0511 EFFECTIVE DATE : 20130122
US2012257970 AA	20140312	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012285150 AA	20121115	LSPB	+	published / reissued	
US2012285150 AA	20120502	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KAMEDA, TAKURO; ROBERTSON, ALASDAIR; DODSON, HENRY; AND OTHERS; SIGNING DATES FROM 20120402 TO 20120412; REEL/FRAME:028143/0016
US2012285150 AA	20141212	LSES	NFA1	Non Final Action Mailed	
US2012285150 AA	20151219	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013067900 AA	20130321	LSPB	+	published / reissued	
US2013067900 AA	20120604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; SHIMIZU, MASAYUKI; MAEKAWA, ATSUSHI; AND OTHERS; REEL/FRAME:028311/0500 EFFECTIVE DATE : 20120601
US2013067900 AA	20150710	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013076040 AA	20130328	LSPB	+	published / reissued	
US2013076040 AA	20131218	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013076042 AA	20130328	LSPB	+	published / reissued	
US2013076042 AA	20140409	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013214537 AA	20130822	LSPB	+	published / reissued	
US2013214537 AA	20130327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HASHIMOTO, JUN; WAKASA, TSUYOSHI; BALDINI, FRANCESCO; AND OTHERS; REEL/FRAME:030095/0034 EFFECTIVE DATE : 20120402
US2013214537 AA	20141016	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013234433 AA	20130912	LSPB	+	published / reissued	
US2013234433 AA	20130522	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; SHIMIZU, MASAYUKI; CALDWELL, NIALL; AND OTHERS; SIGNING DATES FROM 20110103 TO 20110328; REEL/FRAME:030469/0121
US2013234433 AA	20141103	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2013249214 AA	20130926	LSPB	+	published / reissued	
US2013249214 AA	20120507	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD, JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ICHINOSE, HIDEKAZU; TSUTSUMI, KAZUHISA; SHIMIZU, MASAYUKI; AND OTHERS; REEL/FRAME:028168/0425 EFFECTIVE DATE : 20120402
US2013249214 AA	20131226	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2013251499 AA	20130926	LSPB	+	published / reissued	
US2013251499 AA	20130327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RAMPEN, WILLIAM; REEL/FRAME:030102/0074 EFFECTIVE DATE : 20120402
US2013251499 AA	20151215	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2013257049 AA	20131003	LSPB	+	published / reissued	
US2013257049 AA	20130312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TAYLOR, JAMIE; FIELDING, MICHAEL; CALDWELL, NIALL; REEL/FRAME:030101/0278

					EFFECTIVE DATE : 20130301
US2013257049 AA	20150417	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013307493 AA	20131121	LSPB	+	published / reissued	
US2013307493 AA	20120507	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ICHINOSE, HIDEKAZU; TSUTSUMI, KAZUHISA; SHIMIZU, MASAYUKI; AND OTHERS; REEL/FRAME:028237/0960 EFFECTIVE DATE : 20120417
US2013307493 AA	20150116	LSWD	-EAB1	Expressly Abandoned -- During Examination	
US2014070534 AA	20140313	LSPB	+	published / reissued	
US2014070534 AA	20130328	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAMANO, FUMIO; HOKAZONO, SHIGERU; NAKAYAMA, KEN; AND OTHERS; REEL/FRAME:030109/0267 EFFECTIVE DATE : 20130219
US2014070534 AA	20150225	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US8358024 BB	20130122	LSGT	+	granted / extensions (spc, cpc, pte)	
US8358024 BB	20110215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; MAEKAWA, ATSUSHI; SHIMIZU, MASAYUKI; AND OTHERS; SIGNING DATES FROM 20110128 TO 20110207; REEL/FRAME:025811/0353
US8358024 BB	20121229	LSGT	PAT1	Patented Case	
US8358024 BB	20160707	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8358024 BB	20301130	PEXP		Calculated Patent Term Expiry	
US8362633 BB	20130129	LSGT	+	granted / extensions (spc, cpc, pte)	
US8362633 BB	20110215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; SHIMIZU, MASAYUKI; DUMNOV, DANIIL; SIGNING DATES FROM 20110128 TO 20110207; REEL/FRAME:025809/0833
US8362633 BB	20130109	LSGT	PAT1	Patented Case	
US8362633 BB	20160714	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8362633 BB	20301130	PEXP		Calculated Patent Term Expiry	
US8403644 BB	20130326	LSGT	+	granted / extensions (spc, cpc, pte)	
US8403644 BB	20110930	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; KAMEDA, TAKURO; ICHIRYU, TAKU; REEL/FRAME:027002/0437 EFFECTIVE DATE : 20110830

US8403644 BB	20130306	LSGT	PAT1	Patented Case	
US8403644 BB	20160915	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8403644 BB	20310616	PEXP		Calculated Patent Term Expiry	
US8450868 BB	20130528	LSGT	+	granted / extensions (spc, cpc, pte)	
US8450868 BB	20110218	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; SHIMIZU, MASAYUKI; CALDWELL, NIALL; AND OTHERS; SIGNING DATES FROM 20110128 TO 20110207; REEL/FRAME:025829/0991
US8450868 BB	20130508	LSGT	PAT1	Patented Case	
US8450868 BB	20170528	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8450868 BB	20170626	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8450868 BB	20170626	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8450868 BB	20170718	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20170528
US8450868 BB	20301130	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8601804 BB	20131210	LSGT	+	granted / extensions (spc, cpc, pte)	
US8601804 BB	20120130	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AKASHI, YU; MATSUO, TAKESHI; SATO, SHINSUKE; AND OTHERS; REEL/FRAME:027620/0205 EFFECTIVE DATE : 20111221
US8601804 BB	20131120	LSGT	PAT1	Patented Case	
US8601804 BB	20150106	LSRE	CC	CERTIFICATE OF CORRECTION	
US8601804 BB	20170525	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8601804 BB	20311110	PEXP		Calculated Patent Term Expiry	
US8601805 BB	20131210	LSGT	+	granted / extensions (spc, cpc, pte)	
US8601805 BB	20120524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KAMEDA, TAKURO; AKASHI, YU; MATSUO, TAKESHI; AND OTHERS; REEL/FRAME:028315/0923 EFFECTIVE DATE : 20120417
US8601805 BB	20131120	LSGT	PAT1	Patented Case	
US8601805 BB	20170525	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8601805 BB	20320216	PEXP		Calculated Patent Term Expiry	
US8622719 BB	20140107	LSGT	+	granted / extensions (spc, cpc, pte)	
US8622719 BB	20110215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY

					INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TSUTSUMI, KAZUHISA; NOGUCHI, TOSHIHIDE; KOREMATSU, YASUHIRO; AND OTHERS; SIGNING DATES FROM 20110128 TO 20110207; REEL/FRAME:025808/0754
US8622719 BB	20131218	LSGT	PAT1	Patented Case	
US8622719 BB	20170818	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8622719 BB	20180205	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US8622719 BB	20180205	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8622719 BB	20180205	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8622719 BB	20180227	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180107
US8622719 BB	20301130	PEXP		Calculated Patent Term Expiry	
US8624413 BB	20140107	LSGT	+	granted / extensions (spc, cpc, pte)	
US8624413 BB	20120601	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TSUTSUMI, KAZUHISA; REEL/FRAME:028305/0908 EFFECTIVE DATE : 20120329
US8624413 BB	20131218	LSGT	PAT1	Patented Case	
US8624413 BB	20170622	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8624413 BB	20320215	PEXP		Calculated Patent Term Expiry	
US8684682 BB	20140401	LSGT	+	granted / extensions (spc, cpc, pte)	
US8684682 BB	20120416	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AKASHI, YU; MATSUO, TAKESHI; SATO, SHINSUKE; AND OTHERS; REEL/FRAME:028048/0635 EFFECTIVE DATE : 20120308
US8684682 BB	20140312	LSGT	PAT1	Patented Case	
US8684682 BB	20170914	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8684682 BB	20320131	PEXP		Calculated Patent Term Expiry	
US8710693 BB	20140429	LSGT	+	granted / extensions (spc, cpc, pte)	
US8710693 BB	20120402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AMANO, YOSHIYUKI; TSUTSUMI, KAZUHISA; ICHIRYUU, TAKU; AND OTHERS; SIGNING DATES FROM 20120301 TO 20120305; REEL/FRAME:027969/0725
US8710693 BB	20140409	LSGT	PAT1	Patented Case	

US8710693 BB	20171012	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8710693 BB	20320125	PEXP		Calculated Patent Term Expiry	
US9103438 BB	20150811	LSGT	+	granted / extensions (spc, cpc, pte)	
US9103438 BB	20111222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARTEMIS INTELLIGENT POWER LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CALDWELL, NIALL JAMES; DUMNOV, DANIIL SERGEEVICH; FIELDING, MICHAEL RICHARD; REEL/FRAME:027432/0669 EFFECTIVE DATE : 20110829
US9103438 BB	20150722	LSGT	PAT1	Patented Case	
US9103438 BB	20170803	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ARTEMIS INTELLIGENT POWER LTD.; REEL/FRAME:043178/0966 EFFECTIVE DATE : 20170608
US9103438 BB	20190208	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9103438 BB	20330622	PEXP		Calculated Patent Term Expiry (PTA 754 days)	
WO11147996 A2	20111201	LSPB	+	published / reissued	
WO11147996 A2	20110530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180001498.8 COUNTRY OF REF DOCUMENT : CN
WO11147996 A2	20110923	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3967/KOLNP/2011 COUNTRY OF REF DOCUMENT : IN
WO11147996 A2	20110928	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012516802 COUNTRY OF REF DOCUMENT : JP
WO11147996 A2	20110930	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011729387 COUNTRY OF REF DOCUMENT : EP
WO11147996 A2	20111003	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011226999 COUNTRY OF REF DOCUMENT : AU
WO11147996 A2	20111014	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117024226 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO11147996 A2	20111222	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13380136 COUNTRY OF REF DOCUMENT : US
WO11147996 A3	20121128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11147997 A2	20111201	LSPB	+	published / reissued	
WO11147997 A2	20110530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180001499.2 COUNTRY OF REF DOCUMENT : CN
WO11147997 A2	20110923	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3974/KOLNP/2011 COUNTRY OF REF DOCUMENT : IN

WO11147997 A2	20110928	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012516803 COUNTRY OF REF DOCUMENT : JP
WO11147997 A2	20110930	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011728199 COUNTRY OF REF DOCUMENT : EP
WO11147997 A2	20111003	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011226997 COUNTRY OF REF DOCUMENT : AU
WO11147997 A2	20111014	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117024227 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO11147997 A2	20111223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13380626 COUNTRY OF REF DOCUMENT : US
WO11147997 A3	20121128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11148652 A2	20111201	LSPB	+	published / reissued	
WO11148652 A2	20110530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180023175.9 COUNTRY OF REF DOCUMENT : CN
WO11148652 A2	20120214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012524405 COUNTRY OF REF DOCUMENT : JP
WO11148652 A2	20120215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011728692 COUNTRY OF REF DOCUMENT : EP
WO11148652 A3	20120507	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13390484 COUNTRY OF REF DOCUMENT : US
WO11148652 A3	20121108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127029386 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO11148652 A3	20121128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11148653 A2	20111201	LSPB	+	published / reissued	
WO11148653 A2	20110530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180023089.8 COUNTRY OF REF DOCUMENT : CN
WO11148653 A2	20120214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012524406 COUNTRY OF REF DOCUMENT : JP
WO11148653 A2	20120215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011728693 COUNTRY OF REF DOCUMENT : EP
WO11148653 A3	20120604	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13390571 COUNTRY OF REF DOCUMENT : US
WO11148653 A3	20121108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127029387 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A

					DESIGNATED STATE(S) :
WO11148653 A3	20121128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11148654 A2	20111201	LSPB	+	published / reissued	
WO11148654 A2	20110530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180023090.0 COUNTRY OF REF DOCUMENT : CN
WO11148654 A2	20120214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012524407 COUNTRY OF REF DOCUMENT : JP
WO11148654 A2	20120215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011728694 COUNTRY OF REF DOCUMENT : EP
WO11148654 A3	20120507	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13390903 COUNTRY OF REF DOCUMENT : US
WO11148654 A3	20121108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127029388 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO11148654 A3	20121128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073277 A2	20120607	LSPB	+	published / reissued	
WO12073277 A2	20101130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080003070.2 COUNTRY OF REF DOCUMENT : CN
WO12073277 A2	20101209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010548693 COUNTRY OF REF DOCUMENT : JP
WO12073277 A2	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010257233 COUNTRY OF REF DOCUMENT : AU
WO12073277 A2	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2724564 COUNTRY OF REF DOCUMENT : CA
WO12073277 A2	20101215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010785308 COUNTRY OF REF DOCUMENT : EP
WO12073277 A2	20110215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12999030 COUNTRY OF REF DOCUMENT : US
WO12073277 A2	20110429	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117009912 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073277 A3	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073277 A3	20160223	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI1005506 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110502
WO12073278 A1	20120607	LSPB	+	published / reissued	

WO12073278 A1	20101130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080003098.6 COUNTRY OF REF DOCUMENT : CN
WO12073278 A1	20101209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010548688 COUNTRY OF REF DOCUMENT : JP
WO12073278 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010257226 COUNTRY OF REF DOCUMENT : AU
WO12073278 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2724328 COUNTRY OF REF DOCUMENT : CA
WO12073278 A1	20110110	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010785302 COUNTRY OF REF DOCUMENT : EP
WO12073278 A1	20110215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12997912 COUNTRY OF REF DOCUMENT : US
WO12073278 A1	20110429	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117009936 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073278 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073278 A1	20160223	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI1005507 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110502
WO12073279 A1	20120607	LSPB	+	published / reissued	
WO12073279 A1	20101130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080003069.X COUNTRY OF REF DOCUMENT : CN
WO12073279 A1	20101210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010548956 COUNTRY OF REF DOCUMENT : JP
WO12073279 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010257252 COUNTRY OF REF DOCUMENT : AU
WO12073279 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2724622 COUNTRY OF REF DOCUMENT : CA
WO12073279 A1	20101215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010785303 COUNTRY OF REF DOCUMENT : EP
WO12073279 A1	20110218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1190/DELNP/2011 COUNTRY OF REF DOCUMENT : IN
WO12073279 A1	20110429	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117009832 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073279 A1	20130522	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER : 12999067

				ENTRY INTO NATIONAL PHASE	COUNTRY OF REF DOCUMENT : US
WO12073279 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073279 A1	20160223	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI1005509 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110502
WO12073280 A1	20120607	LSPB	+	published / reissued	
WO12073280 A1	20101130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080003097.1 COUNTRY OF REF DOCUMENT : CN
WO12073280 A1	20101210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010548960 COUNTRY OF REF DOCUMENT : JP
WO12073280 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010257248 COUNTRY OF REF DOCUMENT : AU
WO12073280 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2724633 COUNTRY OF REF DOCUMENT : CA
WO12073280 A1	20101215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010785305 COUNTRY OF REF DOCUMENT : EP
WO12073280 A1	20110215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12997671 COUNTRY OF REF DOCUMENT : US
WO12073280 A1	20110429	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117009886 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073280 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073280 A1	20160216	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI1005505 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110502
WO12073281 A1	20120607	LSPB	+	published / reissued	
WO12073281 A1	20101210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010548961 COUNTRY OF REF DOCUMENT : JP
WO12073281 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010257230 COUNTRY OF REF DOCUMENT : AU
WO12073281 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2724606 COUNTRY OF REF DOCUMENT : CA
WO12073281 A1	20101215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010785306 COUNTRY OF REF DOCUMENT : EP
WO12073281 A1	20110429	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117009899 COUNTRY OF REF DOCUMENT

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WO12073281 A1	20111209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12999123 COUNTRY OF REF DOCUMENT : US
WO12073281 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073281 A1	20160223	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI1005508 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110502
WO12073389 A1	20120607	LSPB	+	published / reissued	
WO12073389 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073389 A1	20131225	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 11709215 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO12073390 A1	20120607	LSPB	+	published / reissued	
WO12073390 A1	20110218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180037603.3 COUNTRY OF REF DOCUMENT : CN
WO12073390 A1	20130125	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011712689 COUNTRY OF REF DOCUMENT : EP
WO12073390 A1	20130130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137002579 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073390 A1	20130131	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013505004 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073390 A1	20130312	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13808029 COUNTRY OF REF DOCUMENT : US
WO12073390 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073502 A1	20120607	LSPB	+	published / reissued	
WO12073502 A1	20111130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180034212.6 COUNTRY OF REF DOCUMENT : CN
WO12073502 A1	20120213	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011799881 COUNTRY OF REF DOCUMENT : EP
WO12073502 A1	20120217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012508707 COUNTRY OF REF DOCUMENT : JP
WO12073502 A1	20121227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127034139 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A

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WO12073502 A1	20130315	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13390851 COUNTRY OF REF DOCUMENT : US
WO12073502 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073504 A2	20120607	LSPB	+	published / reissued	
WO12073504 A2	20111130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180034059.7 COUNTRY OF REF DOCUMENT : CN
WO12073504 A2	20120206	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012506246 COUNTRY OF REF DOCUMENT : JP
WO12073504 A2	20120217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011799882 COUNTRY OF REF DOCUMENT : EP
WO12073504 A3	20121227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127034116 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073504 A3	20130315	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13390807 COUNTRY OF REF DOCUMENT : US
WO12073504 A3	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12073505 A1	20120607	LSPB	+	published / reissued	
WO12073505 A1	20111130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180030729.8 COUNTRY OF REF DOCUMENT : CN
WO12073505 A1	20120213	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011799883 COUNTRY OF REF DOCUMENT : EP
WO12073505 A1	20120213	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012507512 COUNTRY OF REF DOCUMENT : JP
WO12073505 A1	20120502	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13390362 COUNTRY OF REF DOCUMENT : US
WO12073505 A1	20121227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127034108 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12073505 A1	20130531	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12137311 A1	20121011	LSPB	+	published / reissued	
WO12137311 A1	20110405	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180004417.X COUNTRY OF REF DOCUMENT : CN
WO12137311 A1	20111222	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011554017 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12137311 A1	20111229	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

				INFORMATION: ENTRY INTO NATIONAL PHASE	2011797295 COUNTRY OF REF DOCUMENT : EP
WO12137311 A1	20120404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011310936 COUNTRY OF REF DOCUMENT : AU
WO12137311 A1	20120410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3058/DELNP/2012 COUNTRY OF REF DOCUMENT : IN
WO12137311 A1	20120426	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127010770 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12137311 A1	20131007	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12137370 A1	20121011	LSPB	+	published / reissued	
WO12137370 A1	20110922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180004386.8 COUNTRY OF REF DOCUMENT : CN
WO12137370 A1	20120124	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012503813 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12137370 A1	20120131	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011810981 COUNTRY OF REF DOCUMENT : EP
WO12137370 A1	20120404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011310939 COUNTRY OF REF DOCUMENT : AU
WO12137370 A1	20120410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3061/DELNP/2012 COUNTRY OF REF DOCUMENT : IN
WO12137370 A1	20120426	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127010773 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12137370 A1	20131007	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12137371 A1	20121011	LSPB	+	published / reissued	
WO12137371 A1	20110922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180022054.2 COUNTRY OF REF DOCUMENT : CN
WO12137371 A1	20120213	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012507508 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12137371 A1	20120217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011817195 COUNTRY OF REF DOCUMENT : EP
WO12137371 A1	20121227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127034038 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

WO12137371 A1	20131007	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12164789 A1	20121206	LSPB	+	published / reissued	
WO12164789 A1	20120224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201280002202.9 COUNTRY OF REF DOCUMENT : CN
WO12164789 A1	20121227	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012710367 COUNTRY OF REF DOCUMENT : EP
WO12164789 A1	20121228	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127034409 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12164789 A1	20130131	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013505000 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12164789 A1	20130328	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13810573 COUNTRY OF REF DOCUMENT : US
WO12164789 A1	20131202	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13021488 A1	20130214	LSPB	+	published / reissued	
WO13021488 A1	20110810	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180005702.3 COUNTRY OF REF DOCUMENT : CN
WO13021488 A1	20111216	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011553194 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13021488 A1	20111229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011797294 COUNTRY OF REF DOCUMENT : EP
WO13021488 A1	20120614	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011338137 COUNTRY OF REF DOCUMENT : AU
WO13021488 A1	20120629	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127017060 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13021488 A1	20140210	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042251 A1	20130328	LSPB	+	published / reissued	
WO13042251 A1	20110922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180004370.7 COUNTRY OF REF DOCUMENT : CN
WO13042251 A1	20120124	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012503811 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042251 A1	20120127	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER : 2011810527

				ENTRY INTO NATIONAL PHASE	COUNTRY OF REF DOCUMENT : EP
WO13042251 A1	20120404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011310935 COUNTRY OF REF DOCUMENT : AU
WO13042251 A1	20120410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3062/DELNP/2012 COUNTRY OF REF DOCUMENT : IN
WO13042251 A1	20120426	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127010775 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042251 A1	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042252 A1	20130328	LSPB	+	published / reissued	
WO13042252 A1	20120213	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012507510 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042252 A1	20120217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011817196 COUNTRY OF REF DOCUMENT : EP
WO13042252 A1	20130125	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137002169 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042252 A1	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042279 A1	20130328	LSPB	+	published / reissued	
WO13042279 A1	20130130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011869762 COUNTRY OF REF DOCUMENT : EP
WO13042279 A1	20130131	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013504997 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042279 A1	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042294 A1	20130328	LSPB	+	published / reissued	
WO13042294 A4	20140124	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012737897 COUNTRY OF REF DOCUMENT : EP
WO13042294 A4	20140130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014504884 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042294 A4	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042385 A1	20130328	LSPB	+	published / reissued	
WO13042385 A1	20121221	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012801438 COUNTRY OF REF DOCUMENT : EP

WO13042385 A1	20130131	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013505001 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042385 A1	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042487 A1	20130328	LSPB	+	published / reissued	
WO13042487 A1	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13042487 A1	20141015	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12833753 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
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WO13042621 A1	20130328	LSPB	+	published / reissued	
WO13042621 A1	20140130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013534695 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13042621 A1	20140214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012833851 COUNTRY OF REF DOCUMENT : EP
WO13042621 A1	20140324	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13051167 A1	20130411	LSPB	+	published / reissued	
WO13051167 A1	20130128	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012706946 COUNTRY OF REF DOCUMENT : EP
WO13051167 A1	20130131	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013505005 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13051167 A1	20131007	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13080322 A1	20130606	LSPB	+	published / reissued	
WO13080322 A1	20130130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011869763 COUNTRY OF REF DOCUMENT : EP
WO13080322 A1	20130131	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013504998 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13080322 A1	20140530	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13080392 A1	20130606	LSPB	+	published / reissued	
WO13080392 A1	20121227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012558091 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13080392 A1	20121227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127034136

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WO13080392 A1	20130128	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012706945 COUNTRY OF REF DOCUMENT : EP
WO13080392 A8	20140530	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13080397 A1	20130606	LSPB	+	published / reissued	
WO13080397 A1	20140116	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012731751 COUNTRY OF REF DOCUMENT : EP
WO13080397 A1	20140130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014504871 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13080397 A1	20140530	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13080399 A2	20130606	LSPB	+	published / reissued	
WO13080399 A3	20140117	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012737898 COUNTRY OF REF DOCUMENT : EP
WO13080399 A3	20140130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014504875 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14002296 A1	20140103	LSPB	+	published / reissued	
WO14002296 A1	20140130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014522356 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14002296 A1	20140331	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012880049 COUNTRY OF REF DOCUMENT : EP
WO14002296 A1	20141229	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14002297 A1	20140103	LSPB	+	published / reissued	
WO14002297 A1	20140130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014522357 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14002297 A1	20140331	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012879819 COUNTRY OF REF DOCUMENT : EP
WO14002297 A1	20141229	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE

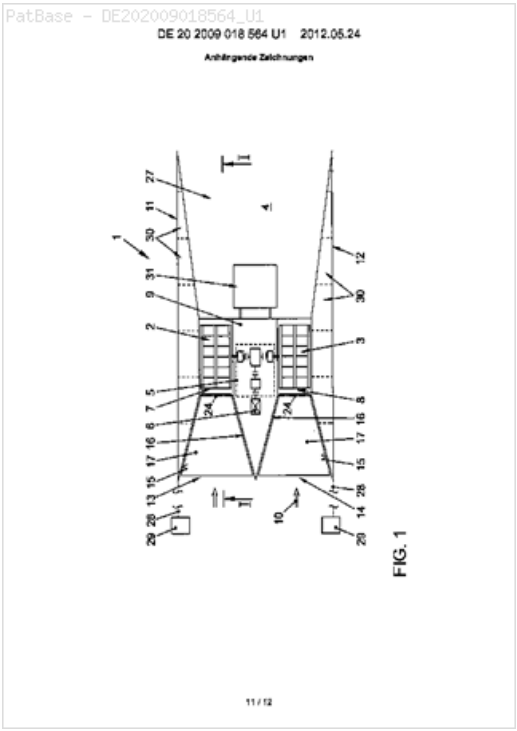
55) Family number: 51095675 (DE202009018564U1)

Title: WASSERKRAFTMASCHINE WATER ENGINE (Machine translation)

Abstract: Source: DE202009018564U1 [DE] Wasserkraftmaschine (1), mit zumindest einem unterschlaechtigen Wasserrad (2, 3), welches die dynamische Energie eines Fliessgewaessers (4) in Bewegungsenergie umsetzt, und mit wenigstens einem mit dem zumindest einen Wasserrad (2, 3) wirkverbundenen **Generator** (6) zur Umwandlung besagter Bewegungsenergie des zumindest einen Wasserrades (2, 3) in elektrische Energie, wobei das zumindest eine Wasserrad (2, 3) und der wenigstens eine **Generator** (6) auf einer zumindest einen Stroemungskanal (7, 8) fuer das zumindest eine Wasserrad (2, 3) aufweisenden Schwimmplattform (9) angeordnet sind, und wobei der zumindest eine Stroemungskanal (7, 8) stromaufwaerts gesehen einen zu den Seiten sowie nach oben und unten begrenzten Stroemungstrichter (13, 14) mit stromaufwaerts gesehen einem sich erweiternden Stroemungsquerschnitt aufweist oder dem Stroemungskanal (7, 8) stromaufwaerts gesehen stirnseitig der Schwimmplattform (9) ein derartiger Stroemungstrichter (13, 14) vorgeordnet ist.

Machine translation: Water combustion engine (1), with at least one undershot water wheel (2, 3) that the dynamic energy of a stream (4) into kinetic energy is reacted, and at least one with the at least one water wheel (2, 3) operatively connected **generator** (6) for converting said kinetic energy of the at least one water wheel (2, 3) into **electrical** energy, wherein the at least one water-wheel (2, 3) and the at least one **generator** (6) on an at least one Stroemungskanal (7, 8) for the at least one water wheel (2, 3) having a floating platform (9) are arranged, and wherein the at least one Stroemungskanal (7, 8) stromaufwaerts seen one to the sides as well as up and down limited Stroemungstrichter (13, 14) seen with stromaufwaerts a flared Stroemungsquerschnitt or having the Stroemungskanal (7, 8) stromaufwaerts end side views of the floating platform (9), such a Stroemungstrichter (13, 14) is arranged upstream.

Classifications:
International (IPC 8-9)**:** F03B7/00 (Advanced/Invention)
CPC: E04C5/03 F03B17/063 F16B25/00 Y02E10/28
European: F03B17/06C2



Family:

Publication number	Publication date	Application number	Application date
DE202009018564 U1	20120524	DE200920018564U	20090619

Priority:

DE200910029920 20090619 DE200920018564U 20090619

Probable Assignee: NEW ERNEUERBARE EN GMBH

Assignee(s): (std)**:** NEW ERNEUERBARE EN GMBH

Assignee(s): NEW ERNEUERBARE ENERGIEN GMBH

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE202009018564 U1	20120329	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202009018564 U1	20120524	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202009018564 U1	20120524	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20120524
DE202009018564 U1	20120524	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20120524
DE202009018564 U1	20120626	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	
DE202009018564 U1	20120626	LSGT	+R150	TERM OF PROTECTION	

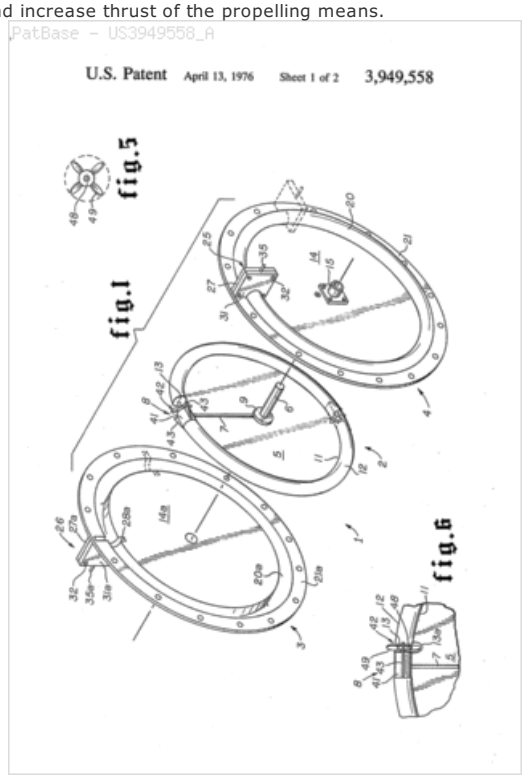
				EXTENDED TO 6 YEARS	
DE202009018564 U1	20120816	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	EFFECTIVE DATE : 20120626
DE202009018564 U1	20120816	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	EFFECTIVE DATE : 20120626
DE202009018564 U1	20160101	LSLE	-R157	LAPSE OF IP RIGHT AFTER 6 YEARS	
DE202009018564 U1	20160101	LSLE	-R157	LAPSE OF IP RIGHT AFTER 6 YEARS	
DE202009018564 U1	20190619	PEXP		Calculated Patent Term Expiry	
DE202009018564 U1	20190619	PEXP		Calculated Patent Term Expiry	

56) Family number: 1267740 (US3949558A)

Title: Power unit

Abstract: A new and improved low-speed, high-torgue power unit including a power means that is mounted on a drive wheel for rotation in a receptacle holding a body of fluid. The power means includes a propelling means which acts against the fluid body to rotate the drive wheel about a power output shaft on which the drive wheel is mounted. A movable gate means may be provided with the receptable to restrict circular flow of the fluid and increase thrust of the propelling means.

Classifications:
International (IPC 8-9): F03B17/00 (Advanced/Invention); F03B17/00 (Core/Invention)
International (IPC 1-7): F03B17/00 F03B17/06 F03G7/00
CPC: F03B17/00 Y02E10/20
European: F03B17/00 Y02E10/20
US: 60/721



Family:

Publication number	Publication date	Application number	Application date
US3949558 A	19760413	US19750571797	19750425

Priority:
US19750571797 19750425

Probable Assignee: ROSS BOBBY LANE
Assignee(s): (std)**:** ROSS BOBBY LANE
Inventor(s): (std)**:** ROSS BOBBY LANE

Legal status (INPADOC)

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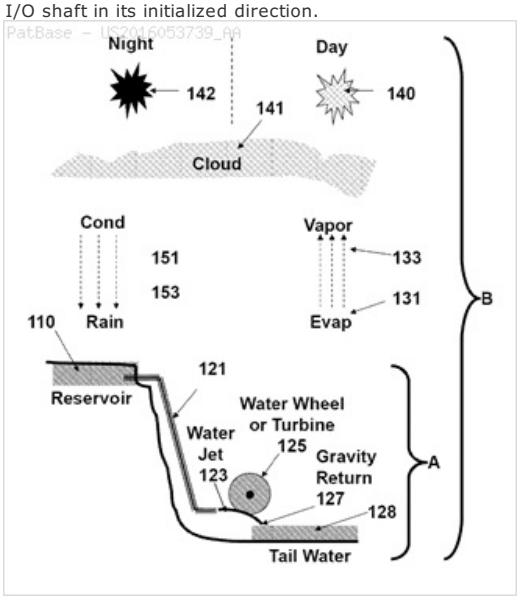
Patent	Date recorded	Event group	Code	Event	Details
US3949558 A	19760413	LSGT	+	granted / extensions (spc, cpc, pte)	

57) Family number: 57413746 (US2016053739A)

Title: SYSTEM AND METHOD FOR ARTIFICIAL GRAVITY FUELED FLUID DYNAMIC ENERGY **GENERATOR** OR MOTOR

Abstract: An Artificial Gravity Fueled Fluid Dynamic Day Energy **Generator**/Motor that initially uses external power to spin a partially submerged low drag fluid distributor rotor that uses centrifugal force to cause fluid to flow from the center of rotation, through a plurality of Euler contoured penstocks, in a true radial direction through a high "g" artificial gravity field, which dramatically increases the fluid's kinetic energy and releases available power, before it is guided out tangentially from the distributor via a plurality of nozzles symmetrically located at a small height just above the reservoir surface (near zero lift). As the frequency of the rotor is increased linearly the fuel Artificial Gravity increases exponentially, as does the fluid dynamic available power Pa. Turbine runners on the rotor assembly capture the available power, and a positive feedback mechanical transmission couples the captured rotational power to the I/O shaft in its initialized direction.

Classifications:
International (IPC 8-9): F03B17/02 F03B17/06 F03B3/08 (Advanced/Invention)
CPC: Y02E10/223 F03B17/061 F03B3/08 Y02E10/28 F05B2260/71 F03B17/00 F03G7/10 Y02E10/20 Y10S415/916
US: 1/1 415/1 415/124.1 416/117



Family:

Publication number	Publication date	Application number	Application date
US2016053739 AA	20160225	US20140412682	20140317
US2018023538 AA	20180125	US20170701420	20170911
WO14145733 A1	20140918	WO2014US30543	20140317

Priority:

US20130799828P 20130315 US20140412682 20140317 WO2014US30543 20140317
US20150412682 20150104 US20170701420 20170911

Probable Assignee: PRILL ROBERT S

Assignee(s): (std): PRILL ROBERT S

Inventor(s): (std): PRILL ROBERT S

Agent(s): WAR STEVEN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2016053739 AA	20160225	LSPB	+	published / reissued	
US2016053739 AA	20170308	LSES	NFA1	Non Final Action Mailed	
US2016053739 AA	20171106	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2018023538 AA	20180125	LSPB	+	published / reissued	
US2018023538 AA	20190214	LSES	NFA1	Non Final Action Mailed	
US2018023538 AA	20191017	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO14145733 A1	20140918	LSPB	+	published / reissued	
WO14145733 A1	20150915	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14145733 A1	20160406	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 14764429 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1

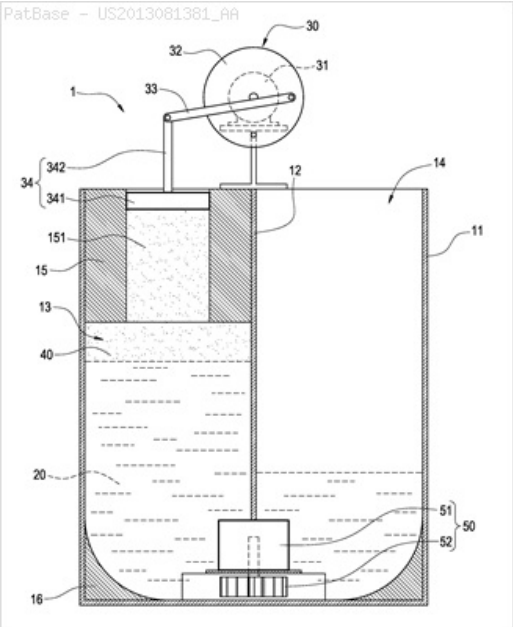
DESIGNATED
STATE(S) :

58) Family number: 53422757 (US2013081381A)

Title: POWER DEVICE USING GAS TO DRIVE LIQUID

Abstract: A power device using a gas to drive a liquid includes a container, a specific quantity of liquid, a driving mechanism, a specific quantity of gas and a power **generator**, and the container has a first chamber, a second chamber, and a communicating hole formed between the first and second chambers; the specific quantity of liquid is filled into the first and second chambers; the driving mechanism includes a moving object contained in the first chamber; the specific quantity of gas is filled into first chamber and situated between the moving object and a liquid surface of the specific quantity of liquid; the power **generator** is installed in the container and at a position corresponding to the communicating hole; and the moving object increases and decreases the pressure of the specific quantity of gas to drive the power **generator** to generate and output power.

Classifications:
International (IPC 8-9): F03B13/00 F03B13/12 F03B13/14 F03B13/24 F04B19/04 F04B23/00 F16D31/02 (Advanced/Invention)
CPC: F04B19/04 F04B23/04 F04F1/06 F03B13/12 Y02E10/32 Y02E10/38 F03B13/142 F03B13/24
US: 290/53 60/325



Family:

Publication number	Publication date	Application number	Application date
AU2014202797 AA	20141218	AU20140202797	20140522
AU2014202797 BB	20170727	AU20140202797	20140522
CN203430691 U	20140212	CN201320363902U	20130624
IN01399DE2014 A	20150612	IN2014DE01399	20140527
JP3192203 U	20140731	JP20140002661U	20140522
TWM468572 Y	20131221	TW20130209979U	20130529
US2013081381 AA	20130404	US20110253040	20111004
US2014353974 AA	20141204	US20140287022	20140524
US2017167466 A9	20170615	US20140287022	20140524
US9683542 BB	20170620	US20140287022	20140524

Priority:
US20110253040 20111004 TW20130209979U 20130529 US20140287022 20140524

Probable Assignee: SMART ENERGY INC
Assignee(s): (std): HEAT POWER ENERGY TECHNOLOGY CO LTD ; SHIH HSIUNG CHEN ; THEODORE EI RU CHEN ; SMART ENERGY INC ; CHEN SHIH HSIUNG
Assignee(s): CHEN THEODORE EI RU ; HEAT POWER ENERGY TECHNOLOGY CO
Inventor(s): (std): CHEN SHIH HSIUNG ; MO JUNWEI ; MO JUN WEI ; MO CHUN WEI ; CHEN SHIXIONG
Agent(s): PIPERS; HDLS IPR SERVICES; CHUN MING

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2014202797 AA	20141218	LSPB	+	published / reissued	
AU2014202797 BB	20170727	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2014202797 BB	20171123	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2014202797 BB	20340522	PEXP		Calculated Patent Term Expiry	
CN203430691 U	20140212	LSGT	+	granted / extensions (spc, cpc, pte)	

CN203430691 U	20140212	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN203430691 U	20230624	PEXP		Calculated Patent Term Expiry	
IN01399DE2014 A	20150612	LSPB	+	published / reissued	
JP3192203 U	20140731	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3192203 U	20140709	LSGT	+R150	実用新案登録証 (Utility model registration card)	
JP3192203 U	20170727	LSFE	R20	実用新案登録料納付書 (Utility model registration fee payment form)	
JP3192203 U	20170801	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP3192203 U	20180712	LSFE	R20	実用新案登録料納付書 (Utility model registration fee payment form)	
JP3192203 U	20180717	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP3192203 U	20190725	LSFE	R20	実用新案登録料納付書 (Utility model registration fee payment form)	
JP3192203 U	20190730	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP3192203 U	20240522	PEXP		Calculated Patent Term Expiry	
TWM468572 Y	20131221	LSGT	+	granted / extensions (spc, cpc, pte)	
US2013081381 AA	20130404	LSPB	+	published / reissued	
US2013081381 AA	20111004	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEN, THEODORE EI-RU, TAIWAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEN, SHIH-HSIUNG; REEL/FRAME:027015/0368 EFFECTIVE DATE : 20110914
US2013081381 AA	20111004	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEN, SHIH-HSIUNG, TAIWAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEN, SHIH-HSIUNG; REEL/FRAME:027015/0368 EFFECTIVE DATE : 20110914
US2013081381 AA	20150428	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014353974 AA	20141204	LSPB	+	published / reissued	
US2014353974 AA	20170508	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014353974 AA	20170531	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9683542 BB	20170620	LSGT	+	granted / extensions (spc, cpc, pte)	
US9683542 BB	20140524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART ENERGY INC., TAIWAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CHEN, SHIH-HSIUNG; MO, CHUN-WEI;

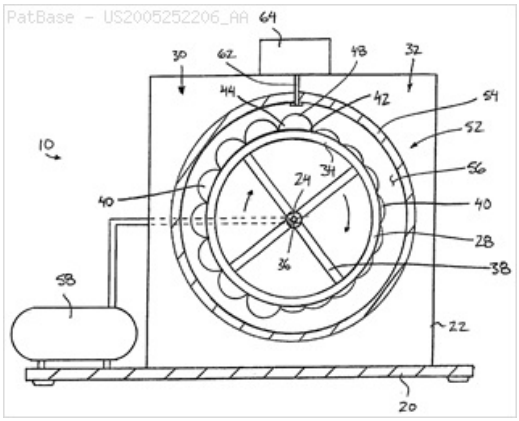
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US9683542 BB	20170531	LSGT	PAT1	Patented Case	
US9683542 BB	20350725	PEXP		Calculated Patent Term Expiry (PTA 427 days)	

59) Family number: 30303773 (US2005252206A)

Title: BUOYANCY MOTOR

Abstract: An engine device (**10**) consumes air under pressure to produce usable mechanical power. The device includes a wheel (**28**) rotatably supported within a tank of fluid (**52**). A plurality of pockets (**40**) at spaced positions about a periphery of the wheel are selectively filled with gas on a rising side (**30**) of the wheel and evacuated of gas on the falling side (**32**) of the wheel such that buoyancy of gas in the pockets on the rising side of the wheel causes rotation of the wheel to produce usable power at a power take-off shaft (**24**) of the wheel.

Classifications:
International (IPC 8-9): F03B1/00 F03B13/12 F03B17/02 F03B17/04 F03C1/00 F03D1/00 F03G7/10 F04D29/00 (Advanced/Invention)
International (IPC 1-7): F03B1/00 F03B13/12 F03B17/02 F03C1/00 F03D1/00 F04D29/00
CPC: F03B17/04 F03B17/02 F03G7/10
European: F03B17/02 F03B17/04 F03G7/10 Y02E10/20
US: 290/53 290/53S 415/52.1 415/52.100S 60/495 60/495P



Family:

Publication number	Publication date	Application number	Application date
AU2003257287 AA	20040223	AU20030257287	20030801
CA2492549 AA	20050119	CA20032492549	20030801
US2005252206 AA	20051117	US20030521816	20030801
WO04013490 A1	20040212	WO2003CA01134	20030801

Priority:
US20020400708P 20020805 WO2003CA01134 20030801 US20050521816 20050121

Probable Assignee: EVANS GORDON
Assignee(s): (std): EVANS GORDON ; HOLMEVIK DON
Inventor(s): (std): HOLMEVIK DON ; EVANS GORDON ; DON HOLMEVIK ; GORDON EVANS
Agent(s): BATTISON WILLIAMS DUPUIS; RYAN W DUPULS, ADE AND COMPANY; RYAN W DUPULS ADE AND CO
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2003257287 AA	20040223	LSPB	+	published / reissued	
AU2003257287 AA	20050519	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2) (F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
CA2492549 AA	20050119	LSPB	+	published / reissued	
CA2492549 AA	20060801	LSLE	-FZDE	DEAD	
US2005252206 AA	20051117	LSPB	+	published / reissued	
US2005252206 AA	20070611	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
WO04013490 A1	20040212	LSPB	+	published / reissued	
WO04013490 A1	20050119	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2492549 COUNTRY OF REF DOCUMENT : CA
WO04013490 A1	20050121	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10521816 COUNTRY OF REF DOCUMENT : US
WO04013490 A1	20050914	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY

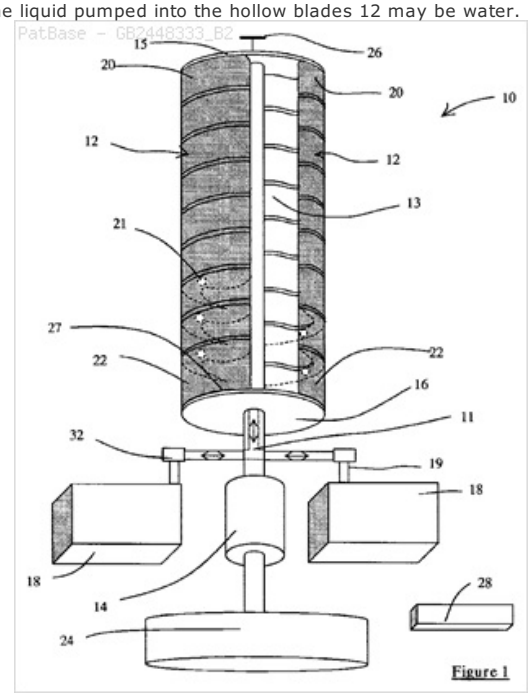
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WO04013490 A1	20060724	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : JP

60) Family number: 34554775 (GB200706976A)

Title: TURBINE

Abstract: A fluid driven vertical axis turbine assembly 10 comprises a base 24 and a rotor rotatably mounted thereon, the rotor having at least two vertically extending hollow blades 12. A **generator** 14 is coupled to the rotor to generate electricity from the rotation thereof. The turbine assembly 10 further comprises at least one source of liquid 18, and a pump 32 which pumps the liquid into the hollow blades 12, the liquid being allowed to drain there from, to generate power, dependent on the rate of fluid flow across the rotor. The draining liquid may pass through nozzle jets which causes rotation of the rotor. Alternatively the draining liquid may generate power using a second **generator**. The interior of the hollow blades 12 may be separated into separate vertically arranged chambers, the flow of liquid to and from each chamber being independently controlled. The turbine rotor may be driven by wind or water, and the liquid pumped into the hollow blades 12 may be water.

Classifications:
International (IPC 8-9): F01D1/32 F03B13/06 F03B17/06 F03D3/00 F03D3/06 F03D9/00 F03D9/02 (Advanced/Invention)
CPC: F03B13/06 F03B17/063 F03D3/065 F01D1/32 F03B17/06 F05B2240/213 Y02E10/28 Y02E10/74 Y02E60/17 F03D9/14 F03D3/005 Y02P80/158 F03D9/008 F03D9/17 F03D9/25 F03D9/28 Y02E60/15
European: F01D1/32 F03B13/06 F03B17/06 F03B17/06C2 F03D3/00D F03D3/06E4 F03D9/00B F03D9/02C2 R05B240/213 Y02E10/28 Y02E10/72 Y02E10/74 Y02E60/17



Family:

Publication number	Publication date	Application number	Application date
GB200706976 A0	20070516	GB20070006976	20070411
GB2448333 A1	20081015	GB20070006976	20070411
GB2448333 B2	20120201	GB20070006976	20070411

Priority:
GB20070006976 20070411

Probable Assignee:	SPANKIE DAVID
Assignee(s): (std):	SPANKIE DAVID ; SPANKIE DAVID PAUL
Assignee(s):	DAVID PAUL SPANKIE
Inventor(s): (std):	SPANKIE DAVID PAUL
Inventor(s):	DAVID PAUL SPANKIE

Legal status (INPADOC)

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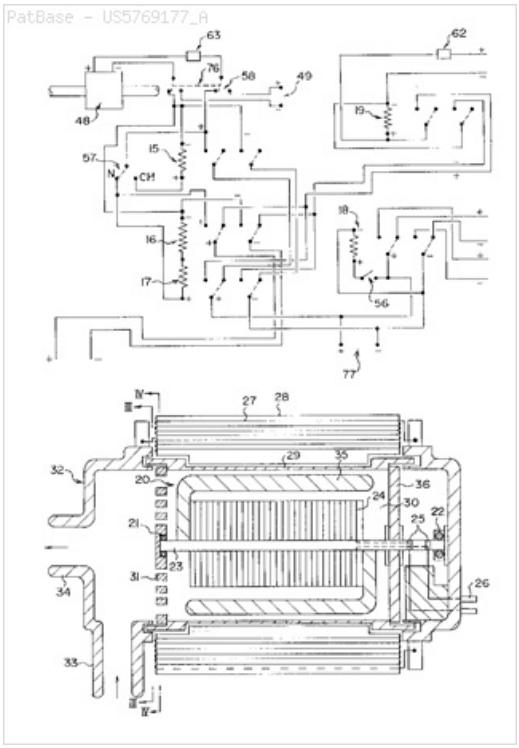
Patent	Date recorded	Event group	Code	Event	Details
GB2448333 A1	20081015	LSPB	+	published / reissued	
GB2448333 B2	20120201	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2448333 B2	20141224	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20140411
GB2448333 B2	20270411	PEXP		Calculated Patent Term Expiry	

61) Family number: 10978794 (US5769177A)

Title: HYDRO ELECTRIC VEHICLE DRIVE SYSTEM

Abstract: A hydraulic drive system for powering a vehicle includes a fluid circuit, a battery driven motorized pump operable to circulate fluid around the fluid circuit, a turbine-**generator** operably associated with the fluid circuit to generate hydro-electricity, and a drive motor for driving the vehicle connectable to the turbine-**generator** to be powered by the hydro-electricity. The drive system may include an automatic switching system for enabling change over from charging of a first set of batteries and discharging of a second set of batteries to charging of the second set of batteries and discharging of the first set of batteries when the first set of batteries has charged above a predetermined level or the second set of batteries has discharged below a predetermined level.

Classifications:
International (IPC 8-9): B60K1/04 B60K16/00 B60K6/00 B60K8/00 B60L11/02 B60L11/12 F03B13/00 H02K13/00 H02K5/128 H02K7/18 (Advanced/Invention);
B60K1/02 B60K1/04 B60K8/00 H02K13/00 (Advanced/Non-invention);
B60K16/00 B60K6/00 B60K8/00 B60L11/02 F03B13/00 H02K5/12 H02K7/18 (Core/Invention);
B60K1/00 B60K1/04 H02K13/00 (Core/Non-invention)
International (IPC 1-7): B60K1/04 B60K6/00 B60K8/00 B60L11/02 F01D15/10 H02J7/00 H02J7/14 H02J9/06
CPC: Y10S903/902 Y02T10/7044 Y02T10/7061 B60K1/02 B60K1/04 F03B13/00 F05B2240/941 H02K5/128 H02K13/003 Y02T10/6217 Y02T10/641 Y02T10/7005 Y02T10/705 Y02T10/7077 B60L50/10 B60L50/62 B60L58/18 H02K7/1823 B60L58/12 B60L58/21 B60K6/00
European: B60K16/00 B60K6/00 B60L11/02 B60L11/12D2 B60L11/18M22 B60L11/18M28 B60L11/18M30 F03B13/00 H02K5/128 H02K7/18A2 L60K1/02 L60K1/04 R05B240/941 T02K13/00B Y02T10/62F2 Y02T10/64B Y02T10/70B Y02T10/70H4 Y02T10/70J2 Y02T10/90
US: 180/65.22 180/65.265 180/65.3 290/52 290/54 903/902



Family:

Publication number	Publication date	Application number	Application date
AU199189191 A1	19920625	AU19910089191	19911122
EP0512086 A1	19921111	EP19910919939	19911122
GB2250726 A1	19920617	GB19900025609	19901124
GB2250726 B2	19950111	GB19900025609	19901124
GB2257098 A1	19930106	GB19920016086	19920723
GB2257098 B2	19950111	GB19920016086	19920723
GB9025609 A0	19910109	GB19900025609	19901124
GB9216086 A0	19920923	GB19920016086	19920723
JP05505509 T2	19930812	JP19910518409T	19911122
JP5505509 T2	19930812	JP19910518409T	19911122
US5769177 A	19980623	US19960613529	19960311
WO9209447 A1	19920611	WO1991GB02074	19911122

Priority:

GB19900025609 19901124 WO1991GB02074 19911122 US19920924011 19920918
US19940314921 19940929 US19960613529 19960311

Probable Assignee: DOMINIC WICKMAN

Assignee(s): (std): DOMINIC WICKMAN ; WICKMAN DOMINIC

Inventor(s): (std): WICKMAN DOMINIC

Inventor(s): DOMINIC WICKMAN

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LI LK LU MC MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199189191 A1	19920625	LSPB	+	published / reissued	
EP0512086 A1	19921111	LSPB	+	published / reissued	
EP0512086 A1	19930203	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19921209
EP0512086 A1	19931118	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19931004

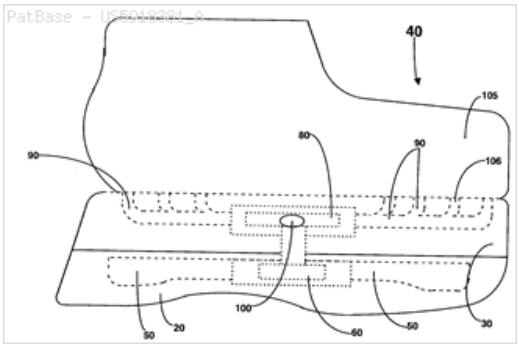
EP0512086 A1	19941207	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19940615
EP0512086 A1	19950524	LSRE	D18D	APPLICATION DEEMED TO BE WITHDRAWN (DELETED)	
EP0512086 A1	19961127	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19960601
GB2250726 A1	19920617	LSPB	+	published / reissued	
GB2250726 B2	19950111	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2250726 B2	20010711	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20001124
GB2250726 B2	20101124	PEXP		Calculated Patent Term Expiry	
GB2257098 A1	19930106	LSPB	+	published / reissued	
GB2257098 B2	19950111	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2257098 B2	20020710	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20011122
GB2257098 B2	20120723	PEXP		Calculated Patent Term Expiry	
JP05505509 T2	19930812	LSPB	+	published / reissued	
JP5505509 T2	19930812	LSPB	+	published / reissued	
US5769177 A	19980623	LSGT	+	granted / extensions (spc, cpc, pte)	
US5769177 A	20020624	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5769177 A	20020723	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5769177 A	20020723	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5769177 A	20020820	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20020623
US5769177 A	20160311	PEXP		Calculated Patent Term Expiry	
WO9209447 A1	19920611	LSPB	+	published / reissued	
WO9209447 A1	19920814	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1991919939 COUNTRY OF REF DOCUMENT : EP
WO9209447 A1	19921111	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991919939 COUNTRY OF REF DOCUMENT : EP
WO9209447 A1	19930819	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9209447 A1	19940724	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA
WO9209447 A1	19960601	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991919939 COUNTRY OF REF DOCUMENT : EP

62) Family number: 30317799 (US5918381A)

Title: SHOE SOLE WITH LIQUID-POWERED VENTILATING FANS

Abstract: This invention relates to a product built into the sole of a shoe that will cool and dehumidify one's feet, providing superior comfort to the feet of the person wearing the shoe. The invention comprises two layers, one of which has a liquid-filled area with a liquid powered turbine and the other layer containing a built-in air fan or fans or other turbines which are powered by the liquid turbine responding to the liquid movement in the other layer. These two layers are molded or otherwise connected to a shoe sole.

Classifications:
International (IPC 8-9): A43B13/00 A43B13/18 A43B3/00 A43B7/06 A43B7/08 (Advanced/Invention);
A43B13/00 A43B3/00 A43B7/00 (Core/Invention)
International (IPC 1-7): A43B13/00 A43B13/18 A43B7/06 F03B13/00
CPC: A43B7/082 A43B3/001 A43B13/00 A43B3/0015 A43B7/04 A43B1/0054 A43B3/00 A43B3/0005 A43B3/0042 A43B7/081
European: A43B1/00M A43B13/00 A43B3/00 A43B3/00E A43B3/00E20 A43B3/00S10 A43B7/04 A43B7/08B
US: 290/54 310/75B 36/3B 36/3R



Family:

Publication number	Publication date	Application number	Application date
CA2276294 AA	20001223	CA19992276294	19990623
US5918381 A	19990706	US19980069107	19980428
US6201314 BA	20010313	US19990348724	19990706

Priority:

US19970048800P 19970606 US19980069107 19980428 CA19992276294 19990623 US19990348724 19990706

Probable Assignee: LANDRY NORMAN
Assignee(s): (std): LANDRY NORMAN
Inventor(s): (std): LANDRY NORMAN
Agent(s): THOMPSON LAMBERT LLP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2276294 AA	20001223	LSPB	+	published / reissued	
CA2276294 AA	20040623	LSLE	-FZDE	DEAD	
US5918381 A	19990706	LSGT	+	granted / extensions (spc, cpc, pte)	
US5918381 A	20030530	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5918381 A	20070706	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5918381 A	20070806	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5918381 A	20070806	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5918381 A	20070828	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20070706
US5918381 A	20180428	PEXP		Calculated Patent Term Expiry	
US6201314 BA	20010313	LSGT	+	granted / extensions (spc, cpc, pte)	
US6201314 BA	20050305	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6201314 BA	20090313	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6201314 BA	20090413	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6201314 BA	20090413	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

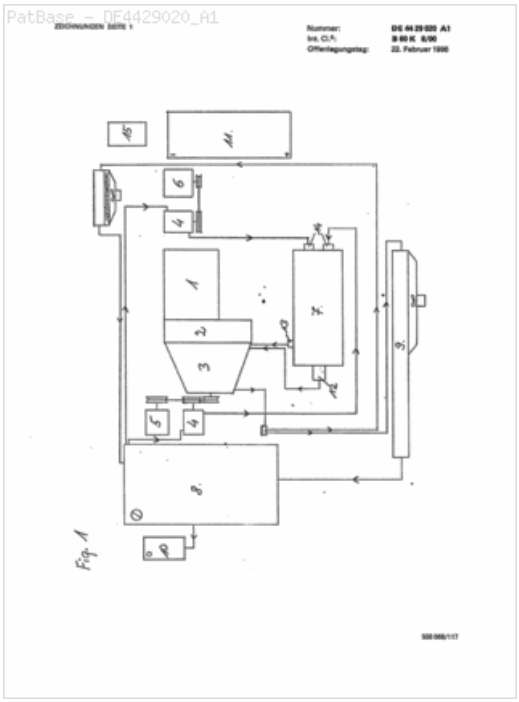
US6201314 BA	20090505	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20090313
US6201314 BA	20190706	PEXP		Calculated Patent Term Expiry	

63) Family number: 11779799 (DE4429020A1)

Title: EMISSIONS-FREE POWER UNIT FOR AUTOMOBILE

Abstract: The environmentally friendly power system for a vehicle has a turbine (2) driven by high pressure water from a high pressure reservoir (7). The reservoir is primed by two pumps (4), one driven off the turbine and one driven by an electric motor. The battery (11) is recharged by a **generator** (5) driven by the turbine. The closed system required no IC engine and is self- sustaining. Excess heat generated in the water circuit is removed by fan cooled radiators (9) and the return flow water is collected in a low pressure tank (8). An expansion tank (10) compensates for thermal expansion of the fluid.

Classifications:
International (IPC 8-9): B60K6/00 B60K8/00 F03B17/00 (Advanced/Invention); B60K6/00 B60K8/00 F03B17/00 (Core/Invention)
International (IPC 1-7): B60K8/00
CPC: F03B17/005 B60K6/00 B60K8/00
European: B60K6/00 B60K8/00 F03B17/00B Y02E10/20



Family:

Publication number	Publication date	Application number	Application date
DE4429020 A1	19960222	DE19944429020	19940816

Priority:
DE19944429020 19940816

Probable Assignee:	KOVACS LAJOS
Assignee(s): (std):	KOVACS LAJOS
Assignee(s):	KOVACS LAJOS 24955 HARRISLEE DE
Inventor(s): (std):	KOVACS LAJOS
Inventor(s):	KOVACS LAJOS 24955 HARRISLEE DE

Legal status (INPADOC)

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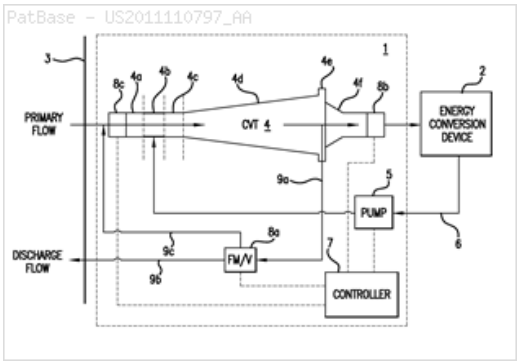
Patent	Date recorded	Event group	Code	Event	Details
DE4429020 A1	19960222	LSPB	+	published / reissued	
DE4429020 A1	19960328	LSLI	8122	NONBINDING INTEREST IN GRANTING LICENCES DECLARED	
DE4429020 A1	19970814	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	

64) Family number: 48843803 (US2011110797A)

Title: SYSTEM AND METHOD FOR WATER EXPULSION FROM UNDERWATER HYDROPOWER PLANT AND HYDROPOWER PLANT ASSOCIATED THEREWITH

Abstract: Systems and methods relate to utilizing fluid potential energy to produce large scale and sustainable hydroelectric power by employing a Cho-Venturi hydraulic ram (CVHR). The CVHR system includes a Cho-Venturi tube (CVT) in which a primary flow from a fluid at a head pressure at a depth in a body of the fluid combines with a recirculation flow in a throat section of the CVT. A pressure higher than the pressure outside the plant is generated at the end of a diverging section the CVT, which enables expulsion of the fluid discharged from hydraulic turbines under atmospheric pressure to the fluid depth while another portion of the fluid is recycled for power generation.

Classifications:
International (IPC 8-9): E21B43/12 F03B13/10 F03B17/06 F03G7/04 F17D1/16 (Advanced/Invention)
CPC: F03B17/06 F03B13/10 Y02E10/22 Y02E10/28 Y10T137/0396
European: F03B13/10 F03B17/06 Y02E10/22 Y02E10/28
US: 1/1 137/14 137/14S 417/65 417/65P



Family:

Publication number	Publication date	Application number	Application date
US2011110797 AA	20110512	US20100938082	20101102
US9127639 BB	20150908	US20100938082	20101102
WO11053978 A2	20110505	WO2010US55126	20101102
WO11053978 A3	20110728	WO2010US55126	20101102

Priority:
US20090257259P 20091102 US20100938082 20101102

Probable Assignee: CHO JOHN M
Assignee(s): (std): CHO JOHN M ; CHO MICHAEL Y
Inventor(s): (std): CHO MICHAEL Y ; CHO JOHN M
Agent(s): STUDEBAKER AND BRACKETT PC; BRACKETT TIM L JR
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2011110797 AA	20110512	LSPB	+	published / reissued	
US2011110797 AA	20150819	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9127639 BB	20150908	LSGT	+	granted / extensions (spc, cpc, pte)	
US9127639 BB	20150819	LSGT	PAT1	Patented Case	
US9127639 BB	20190308	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9127639 BB	20331205	PEXP		Calculated Patent Term Expiry (PTA 1129 days)	
WO11053978 A2	20110505	LSPB	+	published / reissued	
WO11053978 A3	20120502	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11053978 A3	20121128	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 10827651 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

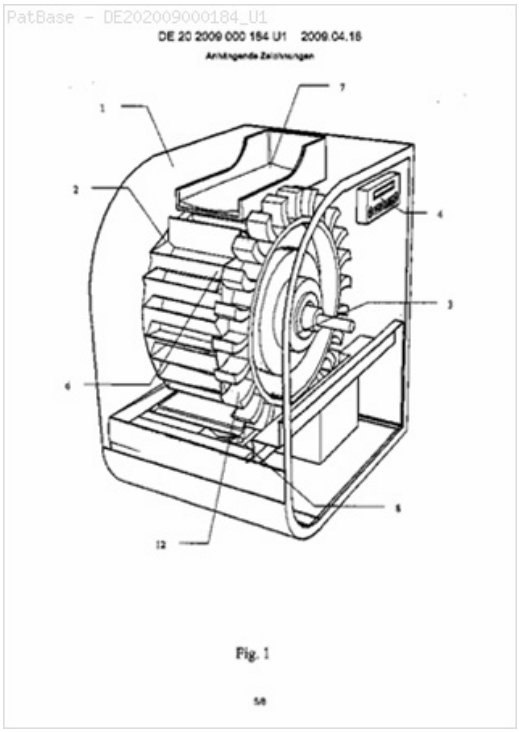
65) Family number: 43046803 (DE202009000184U1)

Title: Modulare Wasserkraftwerk-Vorrichtung Modular hydro-electric power plant device (Machine translation)

Abstract: Source: DE202009000184U1 [DE] (Claim 1) 1. Modulare Wasserkraftwerk-Vorrichtung, umfassend mindestens eine Einheit aus Wasserrad (2) oder Wasserschnecke (5) sowie **Generator** (3) und Steuerelektronik (4), dadurch gekennzeichnet, dass eine Antriebsquelle (2) oder (5) in einem Gehaeuse (1) untergebracht ist, ueber Wasserleitungssystem (7) (8) (9) (10) mit Wasser gespeist wird, den **Generator** (3) antreibt und somit der Erzeugung und Aufbereitung vom elektrischen Strom dient.

Machine translation: (Claim 1) 1. Modular hydro-electric power plant device, comprehensively at least one unit from water wheel (2) or Wasserschnecke (5) as well as **generator** (3) and control electronics (4), by it characterized that one power source (2) or (5) is accommodated in a housing (1) is fed, over water pipeline system (7) (8) (9) (10) with water, the **generator** (3) propels and thus to the production and dressing of the electric current serves for.

Classifications:
International (IPC 8-9)**:** F03B11/02 F03B13/00 F03B5/00 F03B7/00 (Advanced/Invention)
CPC: F03B7/003 F05B2250/25 F05B2260/403 Y02E10/223
European: F03B7/00B



Family:

Publication number	Publication date	Application number	Application date
DE202009000184 U1	20090312	DE200920000184U	20090108

Priority:
DE200920000184U 20090108

Probable Assignee: GEIGER WASSILI
Assignee(s): (std)**:** GEIGER WASSILI

Legal status (INPADOC)

View legal status timeline

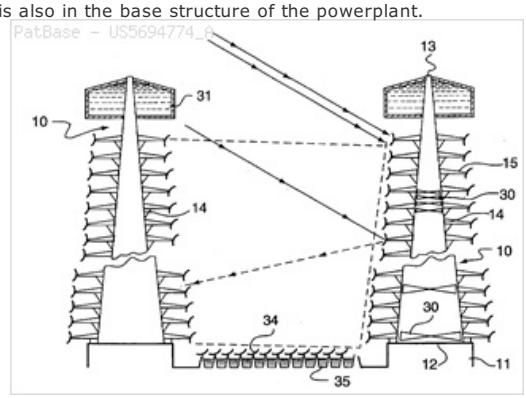
Patent	Date recorded	Event group	Code	Event	Details
DE202009000184 U1	20090312	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202009000184 U1	20090416	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20090416
DE202009000184 U1	20121115	LSLE	-R156	LAPSE OF IP RIGHT AFTER 3 YEARS	EFFECTIVE DATE : 20120801
DE202009000184 U1	20190108	PEXP		Calculated Patent Term Expiry	

66) Family number: 14979807 (US5694774A)

Title: Solar energy powerplant

Abstract: A solar energy powerplant is described comprising a group of seven or more vertical towers open at both ends, these towers being mounted on a base structure in an equally spaced configuration with a single central tower surrounded by at least six towers. A plurality of vertically spaced, radially projecting heating chambers are mounted externally on each tower, each chamber projecting from the tower a distance at least equal to the radius of the adjacent tower. The chamber at each level is divided into a series of segment-shaped compartments separated by radial divider walls, each segment-shaped compartment having an inlet for ambient air and an outlet into the tower for heated air. Secondary heating chambers are associated with the radially projecting chambers, with each secondary heating chamber being positioned beneath a radially projecting chamber and having a V-shaped configuration with one wall thereof being a wall of the tower and the other wall thereof being upwardly and outwardly inclined from the tower wall and connecting at the upper end thereof to a bottom wall of the radially projecting chamber to thereby form both a secondary chamber wall and a support for the radially projecting chamber. Each secondary heating chamber has an inlet for ambient air and an outlet into the tower for heated air. A water reservoir is mounted at the top of each tower and a water reservoir is also in the base structure of the powerplant.

Classifications:
International (IPC 8-9): F03B13/00 F03D9/00 F03G6/00 F03G6/04 F03G6/06 F24J2/42 H02K7/14 (Advanced/Invention)
International (IPC 1-7): F03B13/00 F03D9/00 F03G6/00 F03G7/02 F24J2/42 H02K7/14
CPC: F03G6/045 F03G6/06 Y02E10/465
European: F03G6/04B F03G6/06 Y02E10/46U
US: 290/55 60/641.11 60/641.12 60/641.9



Family:

Publication number	Publication date	Application number	Application date
CA2198407 AA	19970828	CA19972198407	19970225
US5694774 A	19971209	US19960610130	19960229

Priority:

US19960610130 19960228 US19960610130 19960229 CA19972198407 19970225

Probable Assignee: DRUCKER ERNEST R

Assignee(s): (std)**:** DRUCKER ERNEST R

Inventor(s): (std)**:** DRUCKER ERNEST R

Agent(s): KIRBY EADES GALE BAKER

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA2198407 AA	19970828	LSPB	+	published / reissued	
CA2198407 AA	20000225	LSLE	-FZDE	DEAD	
US5694774 A	19971209	LSGT	+	granted / extensions (spc, cpc, pte)	
US5694774 A	20011210	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5694774 A	20020115	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5694774 A	20020115	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5694774 A	20020212	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20011209
US5694774 A	20160229	PEXP		Calculated Patent Term Expiry	

67) Family number: 59065814 (FR3011886A)

Title: DISPOSITIF DE PRODUCTION D'ELECTRICITE DEVICE FOR PRODUCING ELECTRICITY (Machine translation)

Abstract: Source: FR3011886A [FR] L'invention concerne un dispositif de production d'electricite par une structure terrestre qui constitue une cuve contenant un fluide, laquelle cuve est pourvue d'un systeme conduit de translation, d'un conduit a circulation ordonnee, et d'un cheminement interne. La structure comporte egalement deux rotors, un chapelet de modules emplis de gaz, et d'un systeme de relevage. Le systeme conduit de translation avec les rotors permettent aux modules en recirculation de passer d'une ambiance gazeuse a une ambiance liquide en beneficiant de forces de gravite et d'Archimede. Les modules par ces deux forces complementaires entrainent les rotors dont l'un est pourvu d'un prolongement a son axe. A cedit prolongement est monte un multiplicateur de vitesse qui entraine une generatrice d'electricite. Le systeme de relevage est constitue d'une cuvette qui collecte les fuites de fluide issues du conduit de translation, d'un moteur alimente par la generatrice, d'une pompe, et d'un tube qui remonte au sommet de la cuve. Le moteur actionne la pompe, laquelle aspire les fuites de fluide et les renvoie par le tube au-dessus du niveau du liquide present dans la cuve. Ce dispositif a pour avantages de pouvoir etre installe en tout lieu, desert, montagne, plaine, en ne demandant que de faible quantite de fluide et d'avoir a simplement compenser l'evaporation dudit fluide. **Machine translation:** The invention relates to a device for producing electricity by a ground structure which is a tank containing a fluid, which tank is equipped with a system leads to translation, a movement led orderly, and an internal journey. The structure also has two rotors, a string of modules filled with gas, and a lifting system. The system leads to translation with the rotors allow recirculation modules to move from a gaseous environment has a liquid atmosphere beneficiant of gravity forces and Archimedes. Modules by these two complementary forces drive the rotor of which is provided with an extension to its axis. At the said extension is mounted a speed multiplier which causes a generatrice of electricity. The lifting system is constituted by a bowl which collects fluid leakage from the conduit of translation, a motor powered by the **generator**, a pump, and a tube which rises to the top of the tank. The motor actuates the pump, which sucks the fluid leakage and returns through the tube above the liquid level in the tank. This device has the advantages of being able to be installed anywhere, desert, mountain, plain, requiring only small amount of fluid and have simply compensate for evaporation of said fluid.

Classifications:
International (IPC 8-9): F03B17/04 F03G7/10 (Advanced/Invention)
CPC: F03B17/04 F03G7/10

Family:

Publication number	Publication date	Application number	Application date
FR3011886 A1	20150417	FR20130002397	20131016

Priority:
FR20130002397 20131016

Probable Assignee:	LUNEL GERMAIN
Assignee(s): (std):	LUNEL GERMAIN
Assignee(s):	GERMAIN LUNEL
Inventor(s): (std):	LUNEL GERMAIN
Inventor(s):	GERMAIN LUNEL
Agent(s):	GERMAIN LUNEL

Legal status (INPADOC)

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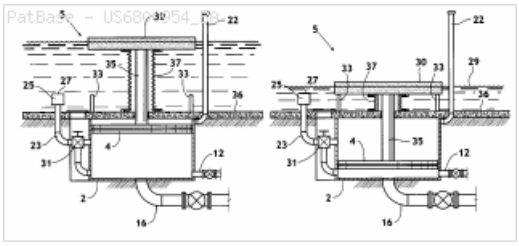
Patent	Date recorded	Event group	Code	Event	Details
FR3011886 A1	20150417	LSPB	+	published / reissued	
FR3011886 A1	20160729	LSLE	-ST	NOTIFICATION OF LAPSE	EFFECTIVE DATE : 20160630

68) Family number: 31022861 (US6800954B)

Title: System and method for producing energy

Abstract: A system and method for producing energy comprising an impoundment area having at least one buoyancy device positioned therein and extending from a pressurization assembly. The impoundment area is preferably positioned with respect to a lifting fluid source such that, by opening an inlet, lifting fluid will flow into the impoundment area to create a rising fluid level and will cause a motive fluid to flow into the pressurization assembly. The lifting fluid can then be removed from the impoundment area to cause the motive fluid to be pressurized. The pressurized motive fluid will preferably be delivered to a fluid turbine.

Classifications:
International (IPC 8-9): F03B13/18 F03B13/26 (Advanced/Invention); F03B13/00 (Core/Invention)
International (IPC 1-7): F03B13/12
CPC: F03B13/1895 F03B13/262 Y02E10/28 Y02E10/38
European: F03B13/18H4 F03B13/26B Y02E10/28 Y02E10/38
US: 290/42 290/53 417/330 60/495



Family:

Publication number	Publication date	Application number	Application date
US6800954 BA	20041005	US20020150604	20020517

Priority:
US20020150604 20020517

Probable Assignee: FIELDSTONE ENERGY CORP
Assignee(s): FIELDSTONE ENERGY CORP ; MEANO BRIAN K
Inventor(s): (std): MEANO BRIAN K

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US6800954 BA	20041005	LSGT	+	granted / extensions (spc, cpc, pte)	
US6800954 BA	20070301	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIELDSTONE ENERGY CORPORATION, OKLAHOMA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MEANO, BRIAN K.; REEL/FRAME:018942/0836 EFFECTIVE DATE : 20070228
US6800954 BA	20071008	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6800954 BA	20121005	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6800954 BA	20121105	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6800954 BA	20121105	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6800954 BA	20121127	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20121005
US6800954 BA	20230227	PEXP		Calculated Patent Term Expiry (PTA 286 days)	

69) Family number: 43552868 (WO09093920A1)

Title: APPARATUS FOR EXTRACTING ENERGY FROM THE MOVEMENT OF STRUCTURES

Abstract: This invention relates to an apparatus for extracting energy from the movement of any structure, namely from the movement of waves, which does not require power supplements for its intended performance. The apparatus is comprised of a capsule-type (alveolar) body 1, which is hermetically sealed, hollow and has a cylindrical or spherical geometry, and is part of a structure 2 which will move. Inside this body 1 in agreement with the movement of the structure, there are appropriate fluids (gas and liquid) (4 and 3). Under the action of gravitational forces, the liquid surface will likely be maintained at the horizon line (level line). This inner relative movement, of body I/liquid 3, is harnessed by a platform 5 rotating around an axis 7, which imparts movement to a hydraulic or other system 6. The latter, in its turn, operates the **generator** for power production.

Classifications:
International (IPC 8-9): F03B13/14 F03B13/20 F03G7/08 (Advanced/Invention); F03B13/00 F03G7/00 (Core/Invention)
CPC: F03B13/20 Y02E10/38
European: F03B13/20 F03G7/08 Y02E10/38

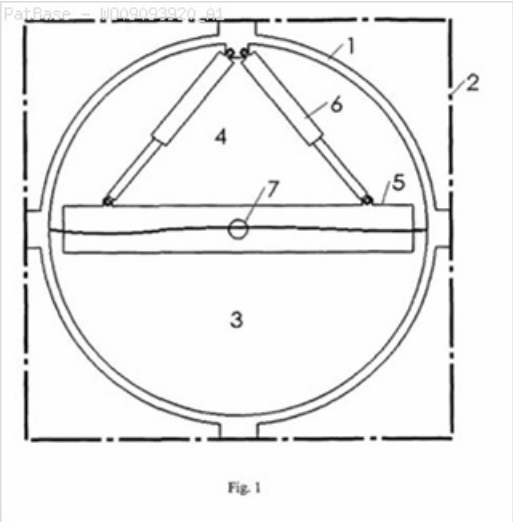


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
PT103911 A	20090629	PT20070103911	20071227
WO09093920 A1	20090730	WO2008PT00056	20081223

Priority:
PT20070103911 20071227

Probable Assignee: SEA FOR LIFE LDA
Assignee(s): (std): DA FONSECA TEIXEIRA NUNO ARMAN ; SEA FOR LIFE LDA
Assignee(s): DA FONSECA TEIXEIRA NUNO ARMANDO
Inventor(s): (std): DA FONSECA TEIXEIRA NUNO ARMANDO ; TEIXEIRA NUNO ARMANDO DA FONSE
Inventor(s): NUNO ARMANDO DA FONSECA TEIXEIRA
Agent(s): PEREIRA DA CRUZ JOAO
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
PT103911 A	20090629	LSPB	+	published / reissued	
PT103911 A	20090629	LSPB	+BB1A	LAYING OPEN OF PATENT APPLICATION	EFFECTIVE DATE : 20080221
PT103911 A	20110704	LSLE	-MM3A	ANNULMENT OR LAPSE	TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20110627
WO09093920 A1	20090730	LSPB	+	published / reissued	
WO09093920 A1	20100629	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO09093920 A1	20110309	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08871565 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

70) Family number: 70159884 (WO18114698A1)

Title: FLOW CONTROLLER

Abstract: The present invention relates to a flow controller (1) configured to selectively act as a pump or as a flow regulator. The flow controller comprises: an inlet (2) for a fluid; an outlet (3) for the fluid; a pump assembly (10) arranged between the inlet (2) and the outlet (3) and configured to pump the fluid through the flow controller (1) from the inlet (2) to the outlet (3); a hydro **electrical generator** assembly (20) arranged between the inlet (2) and the outlet (3), the hydro **electrical generator** assembly (20) being configured to allow the fluid flow through the flow controller (1) from the inlet (2) to the outlet (3) and to generate electricity by transforming flow energy of the fluid flowing through the flow controller (1) into electricity; and a mode controller (30) configured to selectively set the flow controller (1) in a pumping mode or in an electricity generating mode; wherein upon being set in the pumping mode, the mode controller (30) is configured to deactivate the hydro **electrical generator** assembly (20) and to activate the pump assembly (10); and wherein upon being set in the electricity generating mode, the mode controller (30) is configured to deactivate the pump assembly (10) and to activate the hydro **electrical generator** assembly (20).

Classifications:
International (IPC 8-9): E03B7/07 F03B13/00 F03B17/06 F04D13/06 F04D15/02 F04D29/48 F04D5/00 (Advanced/Invention)
International (IPC 1-7): E03B7/07 F03B13/00 F04D29/48
CPC: F03B17/06 E03B7/075 F03B13/00 F04D5/00 F04D13/068 F04D15/0254 F05D2270/3015

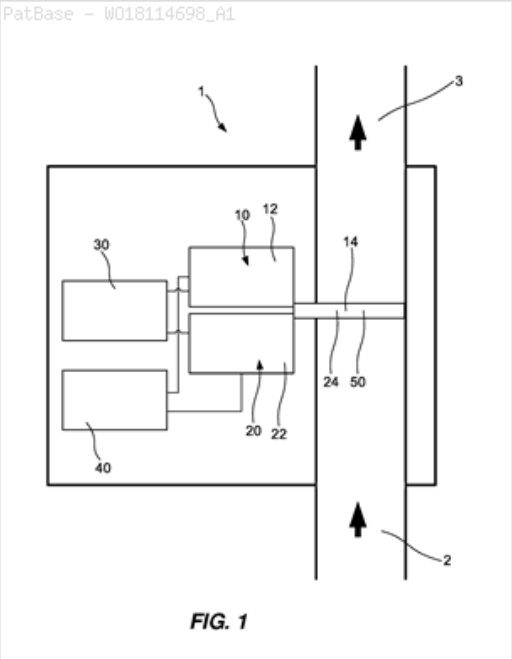


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
AU2017380970 AA	20190530	AU20170380970	20171215
BR112019011278 A2	20191015	BR20191111278	20171215
CA3044337 AA	20190517	CA20173044337	20171215
CL2019001661 A1	20191025	CL20190001661	20190617
CN110088458 A	20190802	CN201780077893	20171215
EP3336344 A1	20180620	EP20160205021	20161219
EP3555458 A1	20191023	EP20170818542	20171215
ID201905402 A	20190726	ID2019PID04757	20171215
IN201917021157 A	20190830	IN201917021157	20190528
KR20190084295 A	20190716	KR20197016899	20171215
MX2019006208 A1	20190814	MX20190006208	20171215
WO18114698 A1	20180628	WO2017EP83077	20171215

Priority:
EP20160205021 20161219 WO2017EP83077 20171215

Probable Assignee: E ON SVERIGE AB
Assignee(s): (std): E ON SVERIGE AB
Assignee(s): EON SVERIGE AB ; ROSEN PER
Inventor(s): (std): PER ROSEN ; ROSEN PER
Agent(s): WRAYS PTY LTD; SMART AND BIGGAR; ESTUDIO CLARKE MODET AND CO CHILE SPA; AWA SWEDEN AB; DR INDA CITRANINDA NOERHADI SS MA; AWAPATENT AB
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2017380970 AA	20190530	LSPB	+	published / reissued	
CA3044337 AA	20190517	LSPB	+	published / reissued	

CL2019001661 A1	20191025	LSPB	+	published / reissued	
CN110088458 A	20190802	LSPB	+	published / reissued	
CN110088458 A	20190802	LSPB	PB01	PUBLICATION	
EP3336344 A1	20180620	LSPB	+	published / reissued	
EP3336344 A1	20190626	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20181221
EP3555458 A1	20191023	LSPB	+	published / reissued	
EP3555458 A1	20191023	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190605
ID201905402 A	20190726	LSPB	+	published / reissued	
IN201917021157 A	20190830	LSPB	+	published / reissued	
KR20190084295 A	20190716	LSPB	+	published / reissued	
KR20190084295 A	20190612	LSES	A201	REQUEST FOR EXAMINATION	
MX2019006208 A1	20190814	LSPB	+	published / reissued	
WO18114698 A1	20180628	LSPB	+	published / reissued	
WO18114698 A1	20190517	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 3044337 COUNTRY OF REF DOCUMENT : CA
WO18114698 A1	20190530	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017380970 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20171215 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18114698 A1	20190612	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20197016899 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18114698 A1	20190613	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2019531670 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18114698 A1	20190620	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO18114698 A1	20190719	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2019117710 COUNTRY OF REF DOCUMENT : RU
WO18114698 A1	20190719	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017818542 COUNTRY OF REF DOCUMENT : EP
WO18114698 A1	20191015	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112019011278 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190531

71) Family number: 31392890 (US2003105556A)

Title: METHOD AND APPARATUS FOR USING WIND TURBINES TO GENERATE AND SUPPLY UNINTERRUPTED POWER TO LOCATIONS REMOTE FROM THE POWER GRID

Abstract: The present invention relates to a wind energy generating and storing system comprising methods and apparatuses for providing energy dedicated for immediate use and energy storage, to provide **electrical** power on an uninterrupted and continous basis, to locations remote from an **electrical** power grid. In a large application, the invention contemplates having a predetermined number of windmills dedicated for immediate use, and a predetermined number of windmills dedicated for energy storage, as compressed air energy in one or more high pressure tanks. A hybrid windmill having the ability to simultaneously switch between energy for immediate use and energy storage can also be provided.

Classifications:

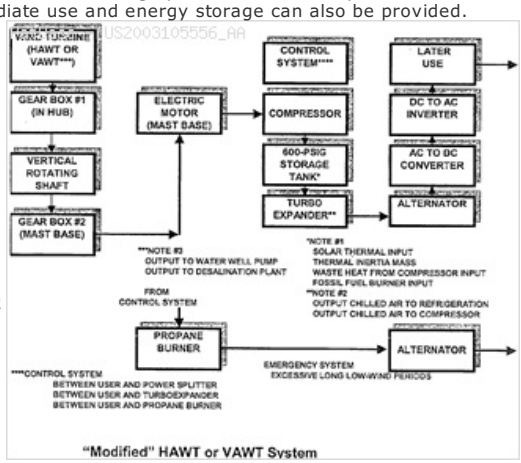
International (IPC 8-9): F02B63/04 F02C1/02 F02C6/16 F03B13/00 F03D F03D11/02 F03D7/04 F03D9/00 F03D9/02 F03G6/06 F03G7/08 F15B13/00 F15B21/00 F16D31/02 F16L1/00 F17D1/04 F17D1/07 G01V3/00 G01V7/00 G01W1/00 G05D17/02 G06F19/00 G06Q10/00 G06Q90/00 H02H7/06 H02K7/18 H02P H02P9/04 (Advanced/Invention); G06Q50/00 (Advanced/Non-invention); F03B13/00 F03D7/00 F03D9/00 F15B13/00 G06F19/00 G06Q10/00 H02K7/18 H02P9/04 (Core/Invention); F03D F16L G06F H02P (Subclass/Invention)

International (IPC 1-7): F02B63/04 F03D11/02 F03D7/00 F03D9/00 F03D9/02 F03G7/08 F16D31/02 F16L1/00 G05D11/00 G06F19/00 H02K7/18 H02P9/04

CPC: F03D7/0284 F05B2260/821 Y02E10/763 F02C1/02 F05B2220/62 F05B2270/404 G06Q10/06315 Y02E10/72 H02J3/38 F05B2240/911 F05B2240/96 Y02E10/728 F03D7/048 F05B2260/8211 F05B2270/32 Y02E10/723 Y02P90/50 Y02A20/141 Y02A30/12 F03D9/28 F03D9/25 F03D17/00 F03D9/00 F02C6/16 F03D9/10 F03D9/17 F03D9/18 F03D9/257 F03G6/064 F05B2270/1033 F05D2270/053 Y02E10/46 Y02E10/725 Y02E60/15 Y02E70/30 F03D9/11 F03D15/10

European: F02C1/02 F02C6/16 F03D7/04E6 F03D9/00 F03D9/00C2B F03D9/00E F03D9/02 F03D9/02D F03G6/06G G06Q10/06315 H02J3/38 R05B220/62 R05B240/911 R05B240/96 R05B260/8211 R05B270/1033 R05B270/320 R05B270/404 Y02E10/46 Y02E10/46U Y02E10/72 Y02E10/72F Y02E10/72H Y02E10/72N Y02E10/76B Y02E60/15 Y02E70/30

US: 290/1.00RP 290/1R 290/44 290/44P 290/44S 290/54 290/54P 290/55 290/55S 361/20 361/20P 60/327 60/327S 60/398 60/398S 60/412 60/412S 700/286 700/286P 700/288 700/291 700/295 702/2 702/2P 702/3 702/60 702/60P 705/7.25 705/7.250P 705/8 705/8P



"Modified" HAWT or VAWT System

Family:

Publication number	Publication date	Application number	Application date
AT374316 E	20071015	AT20020766321T	20021004
AU2002330063 AA	20030422	AU20020330063	20021004
AU2002330063 BB	20091112	AU20020330063	20021004
AU2002330063 BH	20091203	AU20020330063	20021004
AU2004245952 AA	20041216	AU20040245952	20040601
AU2004250158 AA	20041229	AU20040250158	20040614
AU2004250158 BB	20100902	AU20040250158	20040614
AU2007211335 AA	20070809	AU20070211335	20070131
BRPI0213134 A	20060523	BR2002PI13134	20021004
BRPI0213134 B1	20120110	BR2002PI13134	20021004
BRPI0410877 A	20060801	BR2004PI10877	20040601
BRPI0411368 A	20060801	BR2004PI11368	20040614
BRPI0706792 A2	20110405	BR2007PI06792	20070131
CA2462852 AA	20040405	CA20022462852	20021004
CA2462852 C	20120320	CA20022462852	20021004
CA2527597 AA	20051129	CA20042527597	20040614
CA2527623 AA	20051129	CA20042527623	20040601
CA2641136 AA	20080731	CA20072641136	20070131
CL2002002290 A1	20040213	CL20020002290	20021004
CL45617 B	20090728	CL20020002290	20021004
CN100339593 C	20070926	CN20028019656	20021004
CN100468426 C	20090311	CN200480016505	20040614
CN101006257 A	20070725	CN200480014900	20040601
CN101410617 A	20090415	CN200780010447	20070131
CN1615402 A	20050511	CN20028019656	20021004
CN1860485 A	20061108	CN200480016505	20040614
CY1107840 T1	20130619	CY20071101621T	20071220
DE60222694 D1	20071108	DE20026022694T	20021004
DE60222694 D1	20071108	DE20026022694	20021004
DE60222694 T2	20080828	DE20026022694T	20021004
DK1451466 T3	20080204	DK20020766321T	20021004
EP1451466 A1	20040901	EP20020766321	20021004
EP1451466 A4	20041117	EP20020766321	20021004
EP1451466 B1	20070926	EP20020766321	20021004
EP1636729 A2	20060322	EP20040755213	20040614
EP1636729 A4	20120919	EP20040755213	20040614
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EP1639287 A4	20121024	EP20040753786	20040601
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ES2294162 T3	20080401	ES20020766321T	20021004
JP2005530074 T2	20051006	JP20030534764T	20021004
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JP2010133422 A2	20100617	JP20100024926	20100208
JP4731812 B2	20110727	JP20030534764T	20021004
MX2008009855 A1	20080922	MX20080009855	20070131
MXPA04003095 A1	20041129	MX2004PA03095	20021004
MXPA05013456 A1	20070130	MX2005PA13456	20040614
NZ532687 A	20070629	NZ20020532687	20021004
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NZ570864 A	20110930	NZ20070570864	20070131
PT1451466 T	20080107	PT20020766321T	20021004
TW567281 B	20031221	TW20020123115	20021007
US2003105556 AA	20030605	US20020263848	20021004
US2004267466 AA	20041230	US20040865865	20040614
US2005016165 AA	20050127	US20040857009	20040601
US2005225091 AA	20051013	US20050134801	20050520
US2006089805 AA	20060427	US20050242378	20051003
US2006232895 AA	20061019	US20060450174	20060612
US2007182160 AA	20070809	US20070700503	20070131
US2008172279 AA	20080717	US20070001092	20071210
US2009256362 AA	20091015	US20090381435	20090312
US6927503 BB	20050809	US20020263848	20021004
US6963802 BB	20051108	US20040865865	20040614
US7067937 BB	20060627	US20050134801	20050520
US7250691 BB	20070731	US20060450174	20060612
US7308361 BB	20071211	US20050242378	20051003
US7504739 BB	20090317	US20070700503	20070131
US7755212 BB	20100713	US20090381435	20090312
US7974742 BB	20110705	US20070001092	20071210
WO03031813 A1	20030417	WO2002US29841	20021004
WO03031813 C2	20040115	WO2002US29841	20021004
WO04109172 A2	20041216	WO2004US17031	20040601
WO04109172 A3	20070125	WO2004US17031	20040601
WO04113720 A2	20041229	WO2004US18899	20040614
WO04113720 A3	20051208	WO2004US18899	20040614
WO07089872 A2	20070809	WO2007US02706	20070131
WO07089872 A3	20080417	WO2007US02706	20070131
ZA200403368 A	20050504	ZA20040003368	20040504
ZA200600051 A	20070328	ZA20060000051	20040614
ZA200600056 A	20070425	ZA20060000056	20040601
ZA200807453 A	20091230	ZA20080007453	20070131
ZA200906527 A	20110525	ZA20090006527	20090918

Priority:

US20010327012P 20011005	US20020408876P 20020909	EP20020766321 20021004
JP20030534764 20021004	US20020263848 20021004	WO2002US29841 20021004
US20020408876P 20021009	US20030474551P 20030530	US20030478220P 20030613
US20040857009 20040601	WO2004US17031 20040601	US20040865865 20040614
WO2004US18899 20040614	US20050134801 20050520	US20050242378 20051003
US20060763577P 20060131	US20060407733 20060420	US20060450174 20060612
US20060834232P 20060728	US20070700503 20070131	WO2007US02706 20070131
US20070001092 20071210	US20090381435 20090312	

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Inventor(s): ENIS BEN LIEBERMAN PAUL ; M ENIS ; BENS ENIS PAUL LIEBERMAN ; BENS ENIS ; ENIS M BEN

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT374316 E	20071015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT374316 E	20080315	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1451466 COUNTRY OF REF DOCUMENT : EP

AT374316 E	20221004	PEXP		Calculated Patent Term Expiry	
AU2002330063 AA	20030422	LSPB	+	published / reissued	
AU2002330063 BB	20091112	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2002330063 BB	20040819	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: ADD THE CO-APPLICANT/PATENTEE PAUL LIEBERMAN
AU2002330063 BB	20221004	PEXP		Calculated Patent Term Expiry	
AU2002330063 BH	20100311	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2002330063 BH	20130502	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2004245952 AA	20041216	LSPB	+	published / reissued	
AU2004245952 AA	20081120	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: AMEND THE CO-INVENTOR NAMES TO READ ENIS, BEN M. AND LIEBERMAN, PAUL
AU2004245952 AA	20110106	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2004250158 AA	20041229	LSPB	+	published / reissued	
AU2004250158 AA	20081120	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: AMEND THE CO-INVENTOR NAMES TO READ LIEBERMAN, PAUL AND ENIS, BEN M.
AU2004250158 BB	20100902	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2004250158 BB	20110106	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2004250158 BB	20130117	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2004250158 BB	20240614	PEXP		Calculated Patent Term Expiry	
AU2007211335 AA	20070809	LSPB	+	published / reissued	
AU2007211335 AA	20110210	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2007211335 AA	20130829	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI0213134 A	20060523	LSPB	+	published / reissued	
BRPI0213134 A	20110614	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0213134 B1	20120110	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	TEXT : PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 04/10/2002, OBSERVADAS AS CONDICOES LEGAIS.
BRPI0213134 B1	20140429	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON	TEXT : REFERENTE A 11A ANUIDADE.

				NON-PAYMENT OF THE ANNUAL FEES IN TIME	
BRPI0213134 B1	20151124	LSLE	-B24J	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI, RESOLUTION 113/2013 ART. 12)	TEXT : EM VIRTUDE DA EXTINCAO PUBLICADA NA RPI 2260 DE 29-04-2014 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDA A EXTINCAO DA PATENTE E SEUS CERTIFICADOS, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
BRPI0213134 B1	20221004	PEXP		Calculated Patent Term Expiry	
BRPI0410877 A	20060801	LSPB	+	published / reissued	
BRPI0410877 A	20130424	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 9A ANUIDADE(S), CONFORME ART. 10 DA RES. 124/06.
BRPI0410877 A	20130903	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2207 DE 24/04/2013.
BRPI0411368 A	20060801	LSPB	+	published / reissued	
BRPI0411368 A	20140506	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 10A ANUIDADE.
BRPI0411368 A	20140902	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2261 DE 06/05/2014.
BRPI0706792 A2	20130813	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE 6A. ANUIDADE(S).
BRPI0706792 A2	20140218	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2223 DE 13/08/2013.
CA2462852 AA	20040405	LSPB	+	published / reissued	
CA2462852 AA	20071004	LSES	+EEER	EXAMINATION REQUEST	
CA2462852 AA	20081223	LSRE	+FZDC	CORRECTION OF DEAD APPLICATION (REINSTATEMENT)	
CA2462852 C	20120320	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2462852 C	20141117	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20141006
CA2462852 C	20221004	PEXP		Calculated Patent Term Expiry	
CA2527597 AA	20051129	LSPB	+	published / reissued	
CA2527597 AA	20090615	LSES	+EEER	EXAMINATION REQUEST	
CA2527597 AA	20130811	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20130614
CA2527623 AA	20051129	LSPB	+	published / reissued	
CA2527623 AA	20090601	LSES	+EEER	EXAMINATION REQUEST	
CA2527623 AA	20120910	LSLE	-FZDE	DEAD	
CA2641136 AA	20080731	LSPB	+	published / reissued	

CA2641136 AA	20120131	LSES	+EER	EXAMINATION REQUEST	
CA2641136 AA	20140330	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20140131
CL2002002290 A1	20040213	LSPB	+	published / reissued	
CL45617 B	20090728	LSGT	+	granted / extensions (spc, cpc, pte)	
CL45617 B	20240728	PEXP		Calculated Patent Term Expiry	
CN100339593 C	20070926	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100339593 C	20070926	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100339593 C	20131120	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN100339593 C	20221004	PEXP		Calculated Patent Term Expiry	
CN100468426 C	20090311	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100468426 C	20090311	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100468426 C	20130731	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN100468426 C	20240614	PEXP		Calculated Patent Term Expiry	
CN101006257 A	20070725	LSPB	+	published / reissued	
CN101006257 A	20070725	LSPB	+C06	PUBLICATION	
CN101006257 A	20110216	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN101410617 A	20090415	LSPB	+	published / reissued	
CN101410617 A	20090415	LSPB	+C06	PUBLICATION	
CN101410617 A	20121205	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN1615402 A	20050511	LSPB	+	published / reissued	
CN1615402 A	20050511	LSPB	+C06	PUBLICATION	
CN1860485 A	20061108	LSPB	+	published / reissued	
CN1860485 A	20061108	LSPB	+C06	PUBLICATION	
CY1107840 T1	20130619	LSGT	+	granted / extensions (spc, cpc, pte)	
CY1107840 T1	20271220	PEXP		Calculated Patent Term Expiry	
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DE60222694 D1	20081016	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60222694 T2	20080828	LSGT	+	granted / extensions (spc, cpc, pte)	
DE60222694 T2	20081016	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60222694 T2	20221004	PEXP		Calculated Patent Term Expiry	

DK1451466 T3	20080204	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1451466 T3	20221004	PEXP		Calculated Patent Term Expiry	
EP1451466 A1	20040901	LSPB	+	published / reissued	
EP1451466 A1	20040901	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040504
EP1451466 A4	20041117	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20041005
EP1451466 A4	20050223	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : ENIS, BEN
EP1451466 A4	20050223	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : LIEBERMAN, PAUL
EP1451466 A4	20070425	LSRE	RTI1	TITLE (CORRECTION)	TEXT : METHOD AND APPARATUS FOR USING WIND TURBINES TO GENERATE AND SUPPLY UNINTERRUPTED POWER TO LOCATIONS REMOTE FROM THE POWER GRID
EP1451466 B1	20070926	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1451466 B1	20070926	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1451466 B1	20071015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1451466 B1	20071114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1451466 B1	20080131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070926
EP1451466 B1	20080205	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20070403813 COUNTRY OF REF DOCUMENT : GR
EP1451466 B1	20080401	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2294162 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1451466 B1	20080530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070926
EP1451466 B1	20080530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070926
EP1451466 B1	20080903	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20080627
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EP1451466 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071226
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EP1451466 B1	20110131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20101026 YEAR OF FEE PAYMENT : 9
EP1451466 B1	20110228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20101129 YEAR OF FEE PAYMENT : 9
EP1451466 B1	20110331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20101026 YEAR OF FEE PAYMENT : 9
EP1451466 B1	20110331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20101023 YEAR OF FEE PAYMENT : 9
EP1451466 B1	20110331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20101027 YEAR OF FEE PAYMENT : 9
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20111018 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20111024 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20111019 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20111016 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20111026 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20111021 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20111018

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20111021 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20111108 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20111024 YEAR OF FEE PAYMENT : 10
EP1451466 B1	20130228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20120405 YEAR OF FEE PAYMENT : 11
EP1451466 B1	20130430	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : LIEBERMAN, PAUL EFFECTIVE DATE : 20121031
EP1451466 B1	20130430	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : ENIS, BEN EFFECTIVE DATE : 20121031
EP1451466 B1	20130515	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20130501
EP1451466 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1451466 B1	20130531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20121010 YEAR OF FEE PAYMENT : 11
EP1451466 B1	20130531	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1451466 B1	20130603	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP1451466 B1	20130615	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 374316 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20121004
EP1451466 B1	20130618	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : ML REF DOCUMENT NUMBER : 20070403813 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20130508
EP1451466 B1	20130626	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20121004
EP1451466 B1	20130717	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1451466 B1	20130726	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20130628

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EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121004
EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121004
EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130501
EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121004
EP1451466 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121005
EP1451466 B1	20130822	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60222694 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130501
EP1451466 B1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130508
EP1451466 B1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121004
EP1451466 B1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130501

EP1451466 B1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1451466 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1451466 B1	20140116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20140116
EP1451466 B1	20140411	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20140404
EP1451466 B1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121004
EP1451466 B1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121005
EP1451466 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20131004
EP1451466 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140404
EP1451466 B1	20221004	PEXP		Calculated Patent Term Expiry	
EP1636729 A2	20060322	LSPB	+	published / reissued	
EP1636729 A2	20060322	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20051229
EP1636729 A4	20120919	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20120821
EP1636729 A4	20130605	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20121120
EP1639287 A2	20060329	LSPB	+	published / reissued	
EP1639287 A2	20060329	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20051229
EP1639287 A4	20121024	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20120926
EP1639287 A4	20130710	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130103
EP1987248 A2	20081105	LSPB	+	published / reissued	
EP1987248 A2	20081105	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080829

EP1987248 A4	20130626	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130527
EP1987248 A4	20140115	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130801
ES2294162 T3	20080401	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2294162 T3	20221004	PEXP		Calculated Patent Term Expiry	
JP2005530074 T2	20051006	LSPB	+	published / reissued	
JP2005530074 T2	20050712	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20050414
JP2005530074 T2	20051004	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20051003
JP2005530074 T2	20051004	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20051003
JP2005530074 T2	20060121	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060120
JP2005530074 T2	20060131	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060130
JP2005530074 T2	20080422	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20080422
JP2005530074 T2	20080920	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080919
JP2005530074 T2	20081015	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20081014
JP2005530074 T2	20081111	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20081110
JP2005530074 T2	20090227	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090226
JP2005530074 T2	20090310	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090308
JP2005530074 T2	20090418	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090417
JP2005530074 T2	20090423	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20090422
JP2005530074 T2	20090810	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090807
JP2005530074 T2	20100209	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100208
JP2005530074 T2	20100426	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20100423
JP2005530074 T2	20110205	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110204
JP2005530074 T2	20110428	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110420

				PROCEDURE)	
JP2005530074 T2	20110428	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2005530074 T2	20110428	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2007500823 T2	20070118	LSPB	+	published / reissued	
JP2007500823 T2	20070613	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070612
JP2007500823 T2	20070613	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20070612
JP2007500823 T2	20100115	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100114
JP2007500823 T2	20100316	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100315
JP2007500823 T2	20110407	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110406
JP2007500823 T2	20111007	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111006
JP2007500823 T2	20111017	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111006
JP2007500823 T2	20120502	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120501
JP2007500823 T2	20121106	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20121105
JP2007506039 T2	20070315	LSPB	+	published / reissued	
JP2007506039 T2	20070602	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070601
JP2007506039 T2	20070602	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20070601
JP2007506039 T2	20091204	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20091203
JP2007506039 T2	20100707	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20100706
JP2009525432 T2	20090709	LSPB	+	published / reissued	
JP2009525432 T2	20100128	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100127
JP2009525432 T2	20100128	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20100127
JP2009525432 T2	20100216	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100213
JP2009525432 T2	20101210	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101209
JP2009525432 T2	20120124	LSES	-A131	NOTIFICATION OF REASONS FOR	TEXT : JAPANESE INTERMEDIATE CODE: A131

				REFUSAL	EFFECTIVE DATE : 20120123
JP2009525432 T2	20120703	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20120702
JP2010133422 A2	20100617	LSPB	+	published / reissued	
JP2010133422 A2	20101210	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101209
JP2010133422 A2	20120321	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120319
JP2010133422 A2	20120911	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20120910
JP4731812 B2	20110727	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4731812 B2	20140428	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4731812 B2	20221004	PEXP		Calculated Patent Term Expiry	
MX2008009855 A1	20080922	LSPB	+	published / reissued	
MX2008009855 A1	20160331	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
MXPA04003095 A1	20041129	LSPB	+	published / reissued	
MXPA04003095 A1	20080402	LSGT	+FG	GRANT OR REGISTRATION	
MXPA05013456 A1	20070130	LSPB	+	published / reissued	
MXPA05013456 A1	20090513	LSGT	+FG	GRANT OR REGISTRATION	
NZ532687 A	20070629	LSPB	+	published / reissued	
NZ532687 A	20061130	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ532687 A	20071026	LSGT	+PSEA	PATENT SEALED	
NZ532687 A	20091030	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ532687 A	20130426	LSLE	-LAPS	PATENT LAPSED	
NZ544382 A	20080630	LSPB	+	published / reissued	
NZ544382 A	20081031	LSGT	+PSEA	PATENT SEALED	
NZ544382 A	20110630	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ544382 A	20141224	LSLE	-LAPS	PATENT LAPSED	
NZ544679 A	20090228	LSPB	+	published / reissued	
NZ544679 A	20060831	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : PAUL LIEBERMAN, US OLDPARTY : OLD OWNER(S): BEN M ENIS
NZ544679 A	20060831	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : BEN M. ENIS, US OLDPARTY : OLD OWNER(S): BEN M ENIS
NZ544679 A	20090626	LSGT	+PSEA	PATENT SEALED	
NZ544679 A	20100930	LSRE	+S35R	PROCEEDINGS UNDER SECTION 35 (RESTORATION OF LAPSED PATENTS): PATENT RESTORED	
NZ544679 A	20110128	LSFE	+RENW	RENEWAL (RENEWAL FEES	

				ACCEPTED)	
NZ544679 A	20110128	LSRE	+S35R	PROCEEDINGS UNDER SECTION 35 (RESTORATION OF LAPSED PATENTS): PATENT RESTORED	
NZ544679 A	20110826	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ544679 A	20141224	LSLE	-LAPS	PATENT LAPSED	
NZ570864 A	20110930	LSPB	+	published / reissued	
NZ570864 A	20120127	LSGT	+PSEA	PATENT SEALED	
PT1451466 T	20080107	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1451466 T	20221004	PEXP		Calculated Patent Term Expiry	
TW567281 B	20031221	LSGT	+	granted / extensions (spc, cpc, pte)	
TW567281 B	20040512	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW567281 B	20130921	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW567281 B	20221007	PEXP		Calculated Patent Term Expiry	
US2003105556 AA	20030605	LSPB	+	published / reissued	
US2003105556 AA	20140318	LSGT	PAT1	Patented Case	
US2004267466 AA	20041230	LSPB	+	published / reissued	
US2004267466 AA	20051019	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005016165 AA	20050127	LSPB	+	published / reissued	
US2005016165 AA	20060627	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005225091 AA	20051013	LSPB	+	published / reissued	
US2005225091 AA	20060607	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006089805 AA	20060427	LSPB	+	published / reissued	
US2006089805 AA	20071121	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006232895 AA	20061019	LSPB	+	published / reissued	
US2006232895 AA	20070711	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007182160 AA	20070809	LSPB	+	published / reissued	
US2007182160 AA	20090225	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008172279 AA	20080717	LSPB	+	published / reissued	
US2008172279 AA	20110615	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009256362 AA	20091015	LSPB	+	published / reissued	
US2009256362 AA	20100623	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6927503 BB	20050809	LSGT	+	granted / extensions (spc,	

				cpc, pte)	
US6927503 BB	20090205	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6927503 BB	20130809	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6927503 BB	20130809	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US6927503 BB	20131001	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20130809
US6927503 BB	20140218	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6927503 BB	20140317	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20140318
US6927503 BB	20140318	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6927503 BB	20170209	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6927503 BB	20221111	PEXP		Calculated Patent Term Expiry (PTA 38 days)	
US6963802 BB	20051108	LSGT	+	granted / extensions (spc, cpc, pte)	
US6963802 BB	20051019	LSGT	PAT1	Patented Case	
US6963802 BB	20090511	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6963802 BB	20131108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6963802 BB	20170508	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6963802 BB	20240614	PEXP		Calculated Patent Term Expiry	
US7067937 BB	20060627	LSGT	+	granted / extensions (spc, cpc, pte)	
US7067937 BB	20060607	LSGT	PAT1	Patented Case	
US7067937 BB	20060912	LSRE	CC	CERTIFICATE OF CORRECTION	
US7067937 BB	20091218	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7067937 BB	20120410	LSRE	CC	CERTIFICATE OF CORRECTION	
US7067937 BB	20131226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7067937 BB	20170707	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7067937 BB	20250520	PEXP		Calculated Patent Term Expiry	
US7250691 BB	20070731	LSGT	+	granted / extensions (spc, cpc, pte)	
US7250691 BB	20070711	LSGT	PAT1	Patented Case	
US7250691 BB	20100713	LSRE	CC	CERTIFICATE OF CORRECTION	
US7250691 BB	20110131	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7250691 BB	20150126	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7250691 BB	20190318	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7250691 BB	20190729	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : 11.5 YR SURCHARGE-LATE PMT W/IN 6 MO, SMALL ENTITY (ORIGINAL EVENT CODE:

					M2556); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7250691 BB	20190729	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7250691 BB	20260612	PEXP		Calculated Patent Term Expiry	
US7308361 BB	20071211	LSGT	+	granted / extensions (spc, cpc, pte)	
US7308361 BB	20071121	LSGT	PAT1	Patented Case	
US7308361 BB	20110329	LSRE	CC	CERTIFICATE OF CORRECTION	
US7308361 BB	20110610	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7308361 BB	20150605	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7308361 BB	20190611	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7308361 BB	20260429	PEXP		Calculated Patent Term Expiry (PTA 208 days)	
US7504739 BB	20090317	LSGT	+	granted / extensions (spc, cpc, pte)	
US7504739 BB	20090225	LSGT	PAT1	Patented Case	
US7504739 BB	20120917	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7504739 BB	20160318	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7504739 BB	20270131	PEXP		Calculated Patent Term Expiry	
US7755212 BB	20100713	LSGT	+	granted / extensions (spc, cpc, pte)	
US7755212 BB	20100623	LSGT	PAT1	Patented Case	
US7755212 BB	20140113	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7755212 BB	20180112	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7755212 BB	20290312	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US7974742 BB	20110705	LSGT	+	granted / extensions (spc, cpc, pte)	
US7974742 BB	20080124	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SAMSUNG ELECTRONICS CO., LTD., KOREA, REPUBLIC OF OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAN, KI-YOUNG; SO, JAE-WOO; KIM, YONG-SEOK; AND OTHERS; REEL/FRAME:020505/0546 EFFECTIVE DATE : 20080123
US7974742 BB	20080124	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAN, KI-YOUNG; SO, JAE-WOO; KIM, YONG-SEOK; AND OTHERS; REEL/FRAME:020505/0546 EFFECTIVE DATE : 20080123
US7974742 BB	20110615	LSGT	PAT1	Patented Case	
US7974742 BB	20111004	LSRE	CC	CERTIFICATE OF CORRECTION	
US7974742 BB	20150108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7974742 BB	20190107	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7974742 BB	20290523	PEXP		Calculated Patent Term Expiry (PTA 530 days and a terminal disclaimer has been filed)	

WO03031813 A1	20030417	LSPB	+	published / reissued	
WO03031813 C2	20040401	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2004/003095 COUNTRY OF REF DOCUMENT : MX
WO03031813 C2	20040402	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003534764 COUNTRY OF REF DOCUMENT : JP
WO03031813 C2	20040405	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 20028196562 COUNTRY OF REF DOCUMENT : CN
WO03031813 C2	20040405	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2462852 COUNTRY OF REF DOCUMENT : CA
WO03031813 C2	20040429	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002330063 COUNTRY OF REF DOCUMENT : AU
WO03031813 C2	20040503	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 532687 COUNTRY OF REF DOCUMENT : NZ
WO03031813 C2	20040504	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002766321 COUNTRY OF REF DOCUMENT : EP
WO03031813 C2	20040901	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002766321 COUNTRY OF REF DOCUMENT : EP
WO03031813 C2	20060523	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0213134 COUNTRY OF REF DOCUMENT : BR
WO03031813 C2	20070926	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002766321 COUNTRY OF REF DOCUMENT : EP
WO04109172 A2	20041216	LSPB	+	published / reissued	
WO04109172 A2	20051124	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2005/012717 COUNTRY OF REF DOCUMENT : MX
WO04109172 A2	20051129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 20048149006 COUNTRY OF REF DOCUMENT : CN
WO04109172 A2	20051129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006533515 COUNTRY OF REF DOCUMENT : JP
WO04109172 A2	20051129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2527623 COUNTRY OF REF DOCUMENT : CA
WO04109172 A2	20051222	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 544382 COUNTRY OF REF DOCUMENT : NZ
WO04109172 A2	20051223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004245952 COUNTRY OF REF DOCUMENT : AU
WO04109172 A2	20051229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004753786 COUNTRY OF REF DOCUMENT : EP
WO04109172 A2	20060103	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER : 200600056

				ENTRY INTO NATIONAL PHASE	COUNTRY OF REF DOCUMENT : ZA
WO04109172 A2	20060103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006/00056 COUNTRY OF REF DOCUMENT : ZA
WO04109172 A2	20060119	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2004245952 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20040601 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO04109172 A2	20060119	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004245952 COUNTRY OF REF DOCUMENT : AU
WO04109172 A2	20060329	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004753786 COUNTRY OF REF DOCUMENT : EP
WO04109172 A2	20060801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0410877 COUNTRY OF REF DOCUMENT : BR
WO04113720 A2	20041229	LSPB	+	published / reissued	
WO04113720 A2	20051129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2527597 COUNTRY OF REF DOCUMENT : CA
WO04113720 A3	20051209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006533788 COUNTRY OF REF DOCUMENT : JP
WO04113720 A3	20051209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2005/013456 COUNTRY OF REF DOCUMENT : MX
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WO04113720 A3	20051223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004250158 COUNTRY OF REF DOCUMENT : AU
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WO04113720 A3	20060103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200600051 COUNTRY OF REF DOCUMENT : ZA
WO04113720 A3	20060103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006/00051 COUNTRY OF REF DOCUMENT : ZA
WO04113720 A3	20060106	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 544679 COUNTRY OF REF DOCUMENT : NZ
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WO04113720 A3	20060119	LSPB	+WWP	WIPO INFORMATION:	REF DOCUMENT NUMBER : 2004250158

				PUBLISHED IN NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AU
WO04113720 A3	20060322	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004755213 COUNTRY OF REF DOCUMENT : EP
WO04113720 A3	20060801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0411368 COUNTRY OF REF DOCUMENT : BR
WO07089872 A2	20070809	LSPB	+	published / reissued	
WO07089872 A3	20080731	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008553343 COUNTRY OF REF DOCUMENT : JP
WO07089872 A3	20080731	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2641136 COUNTRY OF REF DOCUMENT : CA
WO07089872 A3	20080731	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/009855 COUNTRY OF REF DOCUMENT : MX
WO07089872 A3	20080801	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07089872 A3	20080829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007211335 COUNTRY OF REF DOCUMENT : AU
WO07089872 A3	20080829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 570864 COUNTRY OF REF DOCUMENT : NZ
WO07089872 A3	20080829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007762970 COUNTRY OF REF DOCUMENT : EP
WO07089872 A3	20080918	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2007211335 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20070131 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO07089872 A3	20080923	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780010447.5 COUNTRY OF REF DOCUMENT : CN
WO07089872 A3	20110405	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0706792 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20080730
ZA200403368 A	20050504	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200403368 A	20240503	PEXP		Calculated Patent Term Expiry	
ZA200600051 A	20070328	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200600051 A	20240613	PEXP		Calculated Patent Term Expiry	
ZA200600056 A	20070425	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200600056 A	20240531	PEXP		Calculated Patent Term Expiry	
ZA200807453 A	20091230	LSGT	+	granted / extensions (spc, cpc, pte)	

ZA200807453 A	20270130	PEXP		Calculated Patent Term Expiry
ZA200906527 A	20110525	LSGT	+	granted / extensions (spc, cpc, pte)
ZA200906527 A	20290917	PEXP		Calculated Patent Term Expiry

72) Family number: 46148890 (DE202010000838U1)

Title: VAKUUM WASSER KRAFT WERK VACUUM HYDROPOWER STATION (Machine translation)

Abstract: Source: DE202010000838U1 [DE] (Claim 1) 1. Vakuum Wasser Kraft Werk, dadurch gekennzeichnet, dass ein vorzugsweise Saeulenfoermiger, aber Luftdichter, Druckfester und Wasserdichter Wasserspeicher stabil aufgestellt ist.
Machine translation: (Claim 1) 1. Vacuum water strength work, by the fact characterized that preferably a Saeulenfoermiger, but hermetic one, pressure resistant one and waterproof water reservoir are stably set up.

Classifications:
International (IPC 8-9): F03B17/04 (Advanced/Invention);
F03B17/00 (Core/Invention)
CPC: F03B17/04
European: F03B17/04 Y02E10/20

Family:

Publication number	Publication date	Application number	Application date
DE202010000838 U1	20100708	DE201020000838U	20100113

Priority:
DE201020000838U 20100113

Probable Assignee: SOHN HERMANN JOSEF

Assignee(s): (std)**:** SOHN HERMANN JOSEF

Legal status (INPADOC)

View legal status timeline

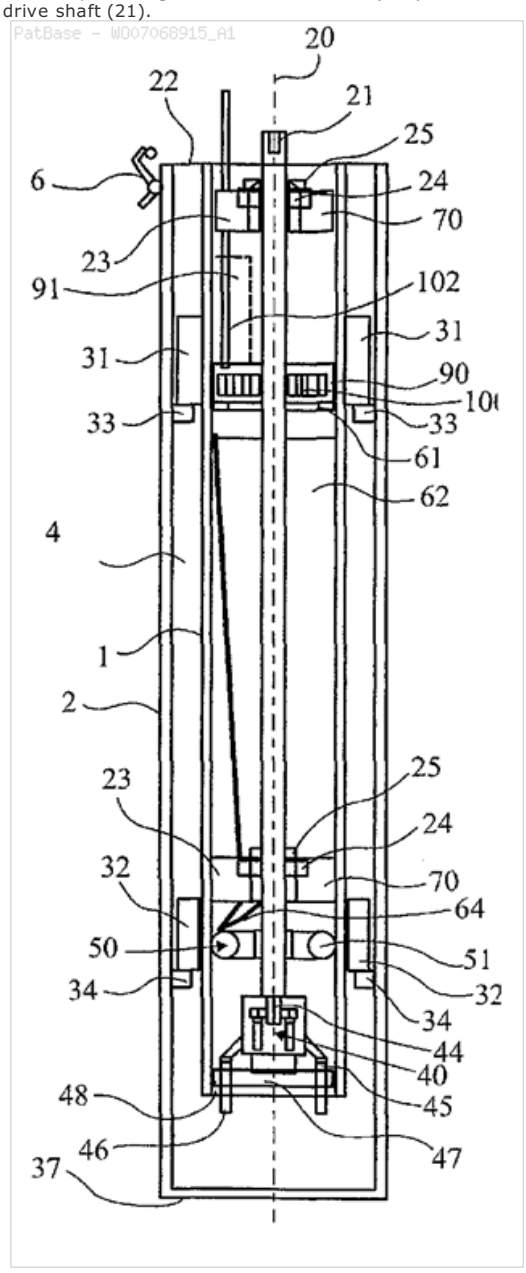
Patent	Date recorded	Event group	Code	Event	Details
DE202010000838 U1	20100708	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202010000838 U1	20100113	LSLI	R086	NON-BINDING DECLARATION OF LICENSING INTEREST	
DE202010000838 U1	20100812	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20100812
DE202010000838 U1	20131205	LSLE	-R156	LAPSE OF IP RIGHT AFTER 3 YEARS	EFFECTIVE DATE : 20130801
DE202010000838 U1	20200113	PEXP		Calculated Patent Term Expiry	

73) Family number: 32634891 (WO07068915A1)

Title: MOTIVE FORCE PRODUCER APPARATUS

Abstract: A motive force producer apparatus has a first chamber (1, 62) arranged to hold and transport fluid under gravitational force to a nozzle (64) which cooperates with blades (51) of a turbine assembly (50). The turbine assembly is connected to drive a shaft (21). A lower end of the shaft drives a pump 40 and an upper end of the shaft drives a motive force utilisation means such as a **generator** (9) or a motor. An outer second chamber (2) is provided so that an annulus (4) is formed between the two chambers. Fluid is driven by the pump (40) up the annulus (4) to be returned to an upper end of the first chamber. An at least partial vacuum is provided above the fluid to assist the pump in circulating the fluid and valves (10) and (11) are provided in the top of the chambers for admitting fluid and producing the vacuum. A wheel (150) is arranged to provide auxiliary rotational effort, when required, to the drive shaft (21).

Classifications:
International (IPC 8-9): F03B13/06 F03B17/00 (Advanced/Invention); F03B13/00 F03B17/00 (Core/Invention)
CPC: F03B13/06 F03B17/005 Y02E60/17
European: F03B17/00B Y02E10/20 Y02E60/17



Family:

Publication number	Publication date	Application number	Application date
GB200525280 A0	20060118	GB20050025280	20051212
GB200624799 A0	20070117	GB20060024799	20061212
GB2434412 A1	20070725	GB20060024799	20061212
GB2434412 B2	20080709	GB20060024799	20061212
WO07068915 A1	20070621	WO2006GB04647	20061212

Priority:
GB20050025280 20051212

Probable Assignee: CRUICKSHANK JOHN S
Assignee(s): (std): CRUICKSHANK JOHN S ; CRUICKSHANK JOHN SMITH ; SCOTA IND LTD
Assignee(s): SCOTA INDUSTRIES LIMITED
Inventor(s): (std): CRUICKSHANK JOHN SMITH
Inventor(s): JOHN SMITH CRUICKSHANK
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA

NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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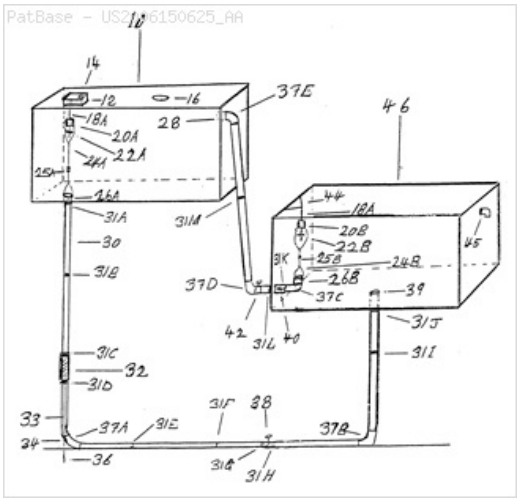
Patent	Date recorded	Event group	Code	Event	Details
GB200525280 A0	20061227	LSAS	COOA	CHANGE IN APPLICANT'S NAME OR OWNERSHIP OF THE APPLICATION	PARTYTYPE : OWNER OWNER : SCOTA INDUSTRIES LIMITED OLDPARTY : FORMER APPLICANT(S): CRUICKSHANK, JOHN S
GB2434412 A1	20070725	LSPB	+	published / reissued	
GB2434412 B2	20080709	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2434412 B2	20140827	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20131212
GB2434412 B2	20261212	PEXP		Calculated Patent Term Expiry	
WO07068915 A1	20070621	LSPB	+	published / reissued	
WO07068915 A1	20080613	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07068915 A1	20090107	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 06820502 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

74) Family number: 33111893 (US2006150625A)

Title: NATURAL FORCES POWER SYSTEM

Abstract: The two forces used are gravity and the atmospheric pressure. Gravity initiates the power phase by causing the water to fall from the elevated sealed water tank 10 to turn the turbine 32. The water lowers to 33.95 feet above ground level within the sealed water tank 10. A vacuum forms above the water. The water flows from the turbine into the elevated open water tank 46 to the level whereby its water outlet valve 26 B opens. This affords a passage back into the elevated sealed water tank 10, through the check valve 40 and the manual shut-off valve 42. This initiates the recovery phase. The atmospheric pressure of 14.7 psi on the elevated open water tank 46 forces the water back into the sealed water tank 10 to relieve the vacuum. This pressure is capable to move the water up to 33.95 feet. Here it has only to move it up to 26.95 feet, realizing a 20.6 percent reserve force. With the water level again attaining maximum height in the sealed water tank 10, it is again released to repeat the cycle.

Classifications:
International (IPC 8-9): F03B17/02 (Advanced/Invention); F03B17/00 (Core/Invention)
CPC: F03B17/005
European: F03B17/00B Y02E10/20
US: 60/495



Family:

Publication number	Publication date	Application number	Application date
US2006150625 AA	20060713	US20050037765	20050112

Priority:

US20050037765 20050112

Probable Assignee:	BEHRENS CLIFFORD H
Assignee(s): (std):	BEHRENS CLIFFORD H
Inventor(s): (std):	BEHRENS CLIFFORD H
Inventor(s):	BEHRENS CLIFFORD HIRAM ; BEHRENS CLIFFORD
Agent(s):	CLIFFORD HIRAM BEHRENS

Legal status (INPADOC)

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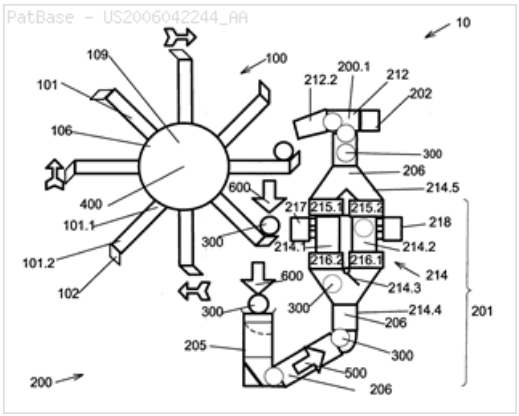
Patent	Date recorded	Event group	Code	Event	Details
US2006150625 AA	20060713	LSPB	+	published / reissued	
US2006150625 AA	20080527	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

75) Family number: 32657929 (US2006042244A)

Title: SEALED SHAFT GRAVITY BUOYANCY ENERGY SYSTEM AND METHOD OF USE THEREOF

Abstract: A sealed-shaft gravity-buoyancy energy system and method of use thereof, wherein a wheel is powered by ball masses which fall under gravitational force, thereby causing the wheel to rotate. The ball masses are collected and inserted into a fluid shaft, wherein the fluid shaft comprises at least two separate columns having valves at the ends thereof to provide a sealing function, thereby preventing fluid loss. Buoyant force raises the ball masses to the top of the device, wherein the ball masses are deposited once again onto the wheel. A **generator** or other device utilizes the rotational force of the wheel to create energy.

Classifications:
International (IPC 8-9): F03B17/02 F03G7/00 (Advanced/Invention); F03B17/00 F03G7/00 (Core/Invention)
CPC: F03G7/10 F03B17/04
European: F03B17/04 F03G3/02 F03G7/10 Y02E10/20
US: 60/495 60/639



Family:

Publication number	Publication date	Application number	Application date
US2006042244 AA	20060302	US20040925680	20040825
US7134283 BB	20061114	US20040925680	20040825

Priority:

US20040925680 20040825

Probable Assignee: VILLALOBOS VICTOR

Assignee(s): (std): VILLALOBOS VICTOR

Inventor(s): (std): VILLALOBOS VICTOR

Agent(s): MYERS AND KAPLAN INTELLECTUAL PROPERTY LAW LLC; THOMAS R; WILLIAMSON INTELLECTUAL PROPERTY LAW LLC

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2006042244 AA	20060302	LSPB	+	published / reissued	
US7134283 BB	20061114	LSGT	+	granted / extensions (spc, cpc, pte)	
US7134283 BB	20101114	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7134283 BB	20101213	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7134283 BB	20101213	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7134283 BB	20110104	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20101114
US7134283 BB	20250112	PEXP		Calculated Patent Term Expiry (PTA 140 days)	

76) Family number: 60047939 (IN03767CH2015A)

Title: A HYDRO POWER, POTENTIAL ENERGY CUM GRAVITY DRIVEN DUAL GIANT WHEEL SYSTEM FOR GENERATING ELECTRICITY FROM LOW PRESSURE WATER SOURCES

Abstract: The invention comprises a dual gigantic wheels arranged in parallel to each other and connected at the central pivot position for executing a parallel vertical rotation with minimum friction. These wheels are provided with specially designed buckets fixedly connected to the said wheel's outer periphery at equally spaced apart positions and connected to the wheel's central pivot through a flexible metallic chain. Or any other - mechanism. A plurality of spaced apart fluid transporting pipes conveys the water or any fluid from the river bed to the said buckets positioned on the said wheels.The potential energy, hydro power and gravitational energy of the fluid stored in the said specially designed buckets initiate a continuous rotational movement to the said dual gigantic wheels. A plurality of the power generating means arranged along the inner periphery of the said wheels convert the said energy into the **electrical** energy and transported through the grids. The said system in general comprises a parallel arranged double wheel-assembly comprising two identical giant wheels spaced apart mounted in a vertical orientation on a horizontal axle with a low friction pivoting connection, the two wheels balanced evenly relative to the horizontal axle for a smooth rotation about the horizontal axle; a series of buckets evenly and fixedly spaced around the outer perimeters of the two wheels, each having a single opening for admitting a fluid into the bucket receptacle with the bucket receptacle in an upright position and the single opening allowing fluid to flow out of the bucket receptacle with the bucket in an inverted position, a plurality of sturts connecting the' said double giant wheels placed between the two wheels interconnecting the two wheels; a series of chains connecting the said buckets to the axel of the said giant wheel, a plurality of water conducting pipes transporting the water, from the low pressure source to the said plurality of buckets, an electricity generating assembly attached to the inner periphery of the said double giant wheels wherein the at least one armature rotatable between at least one pair of magnets to create an electric current in the at least one armature and at least one. **generator** drive wheel connected to the at least one armature by a means to cause a rotation of the at least one armature between the at least one pair of magnets, the at least one **generator** drive wheel contacting the wheel assembly so that the rotation of the wheel assembly causes the at least one **generator** drive wheel to create a rotation of the at least one armature to generate an electric current in the at least one armature; and a means for conducting the electric current away from the at least one armature for use of the electric current. Fig. 1

Classifications:
International (IPC 8-9): F03B (Advanced/Invention);
F03B (Subclass/Invention)

Family:

Publication number	Publication date	Application number	Application date
IN03767CH2015 A	20150807	IN2015CH03767	20150722

Priority:

IN2015CH03767 20150722

Probable Assignee:	MR RONALDDANIEL
Assignee(s): (std):	MR RONALDDANIEL
Assignee(s):	MRRONALDDANIEL ; RONALDDANIEL
Inventor(s): (std):	MR RONALDDANIEL
Inventor(s):	MRRONALDDANIEL ; RONALD DANIEL

Legal status (INPADOC)

View legal status timeline

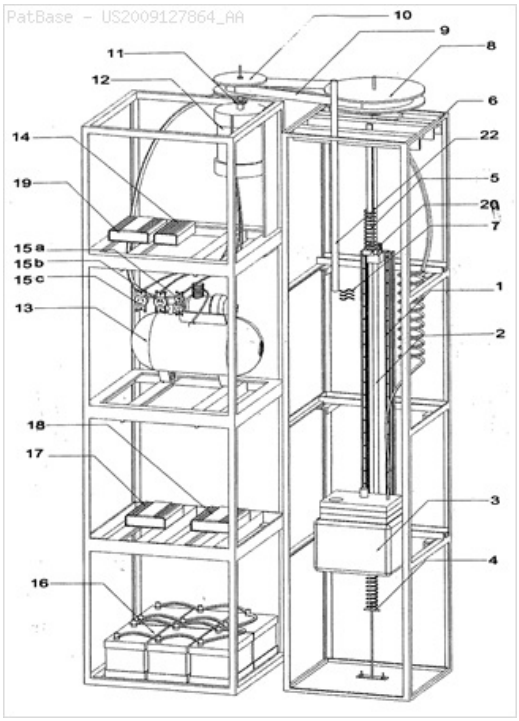
Patent	Date recorded	Event group	Code	Event	Details
IN03767CH2015 A	20150807	LSPB	+	published / reissued	

77) Family number: 43255955 (US2009127864A)

Title: ROBOT GRAVITY-BASED **ELECTRICAL** **GENERATOR**

Abstract: A robotic **generator** that produces electric power and is actuated by the forces of gravity, the Archimedes principle and Faraday's laws of electromagnetic induction. This robotic **generator** is an ecological automated robot that can be used as a standalone electric power producing machine, the robotic **generator** can be small in size to supply electric power to a small building or a single family household, or this robotic **generator** can be made as large size units and can be assembled in multiple large units working together to produce large amounts of electricity. The robot is contained in two boxes, one box is the motive force sealed in a container full of fluids and the second box contains the **generator**, the gear box, the electronic controls, pneumatic pump, inverter, battery charger and the energy storage in the form of batteries and or fast charging and fast release capacitor bank. The box full of fluids contains the motive force, these devices are the following; gravity chamber, the Archimedes air bag assembly, the mechanical slide and the assembly that guides the gravity assembly and the Archimedes air bag that travels up and down and the mechanical motion assembly that transforms the linear travel force into rotational torque or force as well as the electromagnetic stop assemblies and the shock absorber control devices, sensors hoses and wiring. All these devices work together to provide the force to move and power the shaft rotation to power the gear box which provides the rotational speed to the shaft of the **generator** with the rotational speed and power to allow Faraday's law of electromagnetic induction to work since the **generator** has a long coiled wire assembly on its shaft surrounded by north pole and south pole magnets, when the shaft and rotor is turning rapidly the shaft inside the **generator** turns and electric current is converting the mechanical, moving energy into **electrical** energy, this electricity can be used directly by electric appliances, lighting and other **electrical** needs and the excess electricity can be sent to the electric grid or it can be stored into batteries or capacitor banks located at the base of the robot. This robotic gravity **generator** can resolve many of the current environmental problems the world is facing. Since this it does not produce any green gasses and can eliminate the power grid problems utilities have since power outages due to down power lines due to storms or hurricanes or other weather related problems can be reduced if not eliminated. This robotic gravity **generator** is a self sufficient stand alone electric producing apparatus.

Classifications:
International (IPC 8-9): F02B64/04 H02K7/116 (Advanced/Invention); F03B17/04 (Advanced/Non-invention); H02K7/116 (Core/Invention); F03B17/00 (Core/Non-invention)
CPC: F03B17/04 F03G7/10 Y02B10/50
European: F03B17/04 F03G7/10 Y02B10/50 Y02E10/20
US: 290/1.00C 290/1.00CP 290/1.00R 290/1C 290/1R 74/DIG.009 74/DIG.9 74/DIG.9S



Family:

Publication number	Publication date	Application number	Application date
US2009127864 AA	20090521	US20080313557	20081120
US8089167 BB	20120103	US20080313557	20081120

Priority:
US20070003817P 20071120 US20080313557 20081120

Probable Assignee: ALVITE JOSEPH
Assignee(s): (std): ALVITE JOSEPH
Inventor(s): (std): ALVITE JOSEPH
Agent(s): JOSEPH ALVITE; PAUL J

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2009127864 AA	20090521	LSPB	+	published / reissued	
US8089167 BB	20120103	LSGT	+	granted / extensions (spc, cpc, pte)	
US8089167 BB	20111214	LSGT	PAT1	Patented Case	
US8089167 BB	20160103	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8089167 BB	20160201	LSLE	-PEX1	Patent Expired Due to NonPayment of	

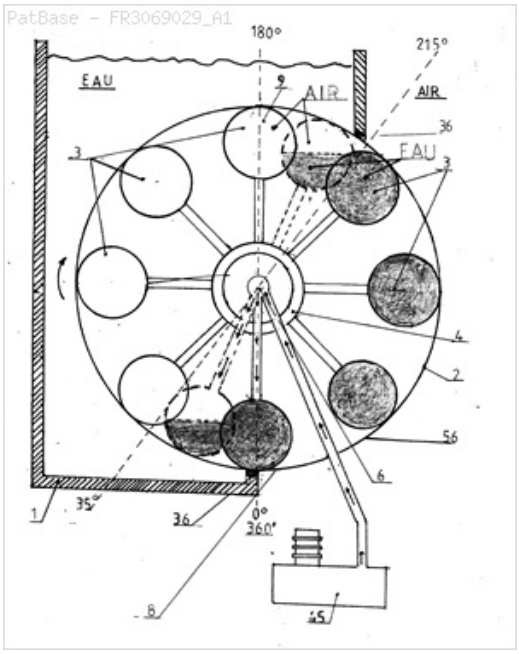
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US8089167 BB	20160223	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160103
US8089167 BB	20300522	PEXP		Calculated Patent Term Expiry (PTA 548 days)	

78) Family number: 73053973 (FR3069029A)

Title: MOTEUR HYDRO-PNEUMATIQUE HYDRO-pneumatic motor (Machine translation)

Abstract: Source: FR3069029A [FR] Dispositif recuperant une puissance mecanique amplifiee par l'action d'air comprime sur de l'eau. L'invention concerne un moteur hydropneumatique. Une cuve(1) remplie d'eau enveloppe partiellement un rotor (2) constitue de huit alveoles (3) etanches remplies alternativement d'air ou d'eau. Le cote gauche (0 degrees a 215 degrees) contient de l'eau, les alveoles, par l'action de l'air comprime se vident de l'eau, plus legeres, la poussee ascendante d'Archimede, les elevent vers le haut, engendre la rotation du rotor (2). Le cote droit (215 degrees A 360 degrees) est a l'air libre, les alveoles (3) se remplissent a nouveau d'eau, deviennent plus lourdes, par l'effet gravitationnel, renforce la puissance de rotation. Le coefficient multiplicateur par l'effet levier est de 1 a 1 metre de diametre, de 2 a 2 metres, de 3 a 3 metres ect... pour la meme quantite d'air comprime expulsant l'eau dans une alveoles (3). **Machine translation:** Device collecting a mechanical power amplified by the action of compressed air on the water. The invention relates to a hydro-pneumatic motor. A tank filled with water(1) partially envelopes a rotor (2) consisting of eight cells (3) sealed met alternatively of air or water. The left side (0 degrees to 215 degrees) contains water, the cells, by the action of the compressed air is clear water, lighter, the upward thrust of the upwardly extend upwardly, causing the Archimede, rotation of the rotor (2). The right side (215 degrees to 360 degrees) is in the open air, the cells (3) fill water again, become heavier, by the gravitational effect, strengthens the power of rotation. The multiplier coefficient by the lever effect is 1 to 1 meters in diameter, of 2 to 2 meters, from 3 to 3 meters ect... for the same amount of compressed air expelling water in a cells (3).

Classifications:
International (IPC 8-9): F03B17/04 (Advanced/Invention)
CPC: F03B17/04 F03B17/02 F05B2210/401



Family:

Publication number	Publication date	Application number	Application date
FR3069029 A1	20190118	FR20170000758	20170713

Priority:
FR20170000758 20170713

Probable Assignee:	WILLEMIN JEAN MARIE JOSEPH
Assignee(s): (std):	WILLEMIN JEAN MARIE JOSEPH
Assignee(s):	JEAN MARIE JOSEPH WILLEMIN
Inventor(s): (std):	WILLEMIN JEAN MARIE JOSEPH
Inventor(s):	JEAN MARIE JOSEPH WILLEMIN
Agent(s):	JEAN MARIE WILLEMIN

Legal status (INPADOC)

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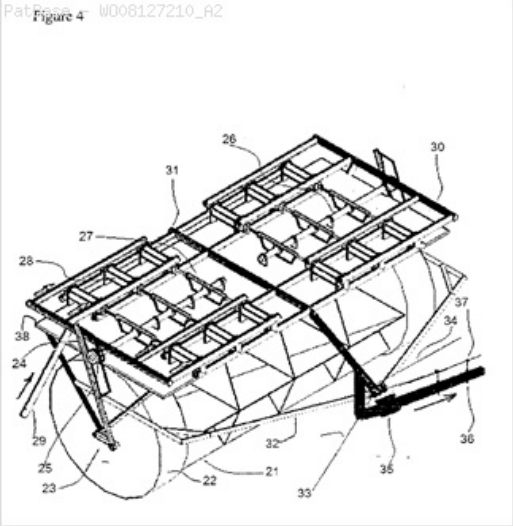
Patent	Date recorded	Event group	Code	Event	Details
FR3069029 A1	20190118	LSPB	+	published / reissued	
FR3069029 A1	20190710	LSFE	PLFP	Fee Payement (FEE PAYMENT)	PAYMENT DATE : 20190710 YEAR OF FEE PAYMENT : 3

79) Family number: 42396983 (WO08127210A2)

Title: ENERGY AND TRANSFORMATION FROM SUN, WATER, VAPOR, WAVE, AIR, WIND ETC.

Abstract: This patent expresses that against the global warming with different instruments how electricity production and / or energy transformation can be. These are; 1) Pumping water to long distances with a machine running with river (water mill), 2) Producing electricity with a machine running with river (water mill), 3) Producing electricity with any kind of pressurized water pumped by the machine running with river, 4) The methods of producing electricity with the air pumped by the pressurized water, 5) Pumping water with wind power (energy) 6) Continuing to pump water (with pumped air) on during absence of wind energy, 7) Producing electricity with wind energy, 8) Producing electricity with water pumped by the wind, 9) Producing electricity (with pumped air) on during absence of wind energy, 10) Getting kinetic energy from water heaters such as radiators etc., 11) Getting kinetic energy from sun hot water panels, 12) Producing electricity with air on the sporting equipment such as treadmill, 13) Producing electricity with the waves on the seas or lakes, 14) Producing electricity with the instruments such as spinning wheel which pump air with the power of animal and /or human, 15) At high buildings, pumping air when coiling the rope to the spinning wheel and /or storing the pressurized air to the tank when letting go with the weight in the tip, 16) Storing the pressurized air to the tank at escalators and 17) Storing the pressurized air to the tank at elevators and 18) When starting the vehicle engines, giving the first move to the vehicle with pressurized air, air regulator (engine) instead of starter motor, 19) Storing air in vehicles for economizing on and 20) The transfer of water and liquids without pump, 21) Automatic filter will be presented here.

Classifications:
International (IPC 8-9): F03B17/06 (Advanced/Invention); F03B17/00 (Core/Invention)
CPC: F03B17/063 Y02E10/28
European: F03B17/06C2 Y02E10/28



Family:

Publication number	Publication date	Application number	Application date
TR200907649 T1	20100521	TR20090007649T	20080413
WO08127210 A2	20081023	WO2008TR00037	20080414
WO08127210 A3	20090924	WO2008TR00037	20080414

Priority:

TR20070002522 20070413

Probable Assignee: GENCER IRFAN
Assignee(s): (std): GENCER IRFAN
Assignee(s): IRFAN GENCER
Inventor(s): (std): GENCER IRFAN
Inventor(s): IRFAN GENCER
Agent(s): DESTEK PATENT INC
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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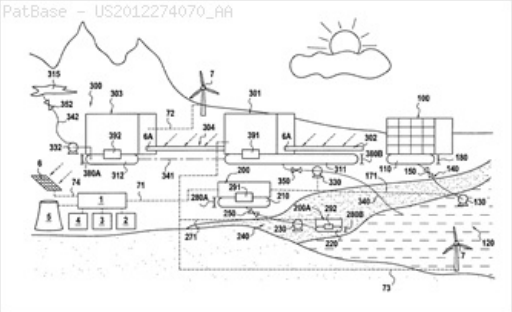
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TR200907649 T1	20100521	LSPB	+	published / reissued	
WO08127210 A2	20081023	LSPB	+	published / reissued	
WO08127210 A3	20091014	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08127210 A3	20100519	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08779513 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

80) Family number: 50899994 (US2012274070A)

Title: METHOD AND AN INSTALLATION FOR PRODUCTION SUPPLEMENTARY **ELECTRICAL** ENERGY

Abstract: An installation for producing supplementary **electrical** energy for an electricity network includes at least first and second water reservoirs, the first water reservoir being situated at a first level and the second water reservoir being situated at a second level lower than the first level, a communicating pipe between the first water reservoir and the second water reservoir being provided with a remote-controlled valve, and a hydro-electric generating system being provided with a pumping installation. The first and/or second water reservoir is integrated in the foundations in the lower portion of an artificial building that needs to be built for a primary function independently of a secondary function of producing electricity. The first water reservoir or the second water reservoir may constitute a common body of water in the vicinity of ground level. The water reservoirs integrated in foundations of buildings may in particular cooperate with installations for air-conditioning or heating the buildings at the base of which they are constructed, or associated buildings.

Classifications:
International (IPC 8-9): E02B9/00 E04H7/02 F01D15/10 F02C6/00 F03B13/06 F03B13/08 F03D9/02 F03D9/14 H02K7/18 H02P9/04 (Advanced/Invention);
F01C13/00 F02D25/00 F02D29/06 F03B13/00 F03B13/10 F24F5/00 (Advanced/Non-invention);
F03B13/00 F03B13/06 F03D9/00 F03D9/02 (Core/Invention)
CPC: F05B2240/40 F05B2240/9112 F24F2005/0057 Y02B10/30 Y02B10/40 Y02B10/50 Y02E10/22 Y02E10/728 Y02E60/17 F03D9/14 Y02P80/158 F03B13/06 F03D9/008 F03D9/255 Y02B10/70
European: F03B13/06 F03D9/02C2 R05B240/40 R05B240/9112 R24F5/00F5 Y02B10/30 Y02B10/50
US: 1/1 290/43 290/4R 290/52 290/54



Family:

Publication number	Publication date	Application number	Application date
AR083125 AA	20130130	AR2011P103528	20110927
BR112013007211 A2	20160614	BR20131107211	20110926
CL2013000830 A1	20130705	CL20130000830	20130326
CL55315 B	20180122	CL20130000830	20130326
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EP2622209 A1	20130807	EP20110773766	20110926
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EP3051121 A1	20160803	EP20160157178	20110926
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ES2582311 T3	20160912	ES20110773766T	20110926
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FR2965310 A1	20120330	FR20100057756	20100927
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HR20161075 T1	20161021	HR20160001075	20160824
ID201706267 A	20170609	ID2016P0004061	20110926
IN02243DN2013 A	20141031	IN2013DN02243	20130313
JP2013537954 T2	20131007	JP20130529699T	20110926
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KR20130139245 A	20131220	KR20137007124	20110926
MX2013003494 A1	20131028	MX20130003494	20110926
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PT3051121 T	20180402	PT20160157178T	20110926
SI2622209 T1	20161028	SI20110030947	20110926
TH130384 A	20131220	TH20131001542	20110926
TR201611485 T4	20161121	TR20160011485T	20110926
TW201229383 A	20120716	TW20110134839	20110927
TWI575153 B	20170321	TW20110134839	20110927
US2012274070 AA	20121101	US20110519280	20110926
US2014246860 AA	20140904	US20140215548	20140317
US8766469 BB	20140701	US20110519280	20110926
US9194360 BB	20151124	US20140215548	20140317
WO12045952 A1	20120412	WO2011FR52223	20110926

Priority:

FR20100057756 20100927 EP20110773766 20110926 EP20160157178 20110926
WO2011FR52223 20110926 US20120519280 20120626 US20140215548 20140317

Probable Assignee: NATURE AND PEOPLE FIRST

Assignee(s): (std): NATURE AND PEOPLE FIRST ; PAYRE DENIS ; PISTERMAN PATRICE ; PISTERMAN PIERRE

Inventor(s): (std): PISTERMAN PATRICE ; PISTERMAN PIERRE ; PAYRE DENIS ; DENIS PAYRE ; PIERRE PISTERMAN ; PATRICE PISTERMAN

Agent(s): SARGENT AND KRAHN; CBDL PATENTANWAELTE; THEVENET JEAN BRUNO; DESORMIERE PIERRE LOUIS; DAVID ALAIN; UNGRIA JAVIER; CABINET BEAU DE LOMENIE; NABILA AM BADAR SH LLM; FULYA SUEMERALP; HAMRE SCHUMANN MUELLER AND LARSON PC; THEVENET JEAN BRUNO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL

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Legal status (INPADOC)

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CL2013000830 A1	20130705	LSPB	+	published / reissued	
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CY1120059 T1	20181212	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP2622209 A1	20130807	LSPB	+	published / reissued	
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EP2622209 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20160906 YEAR OF FEE PAYMENT : 6
EP2622209 B1	20170202	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20160401993 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20161118
EP2622209 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20170309	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011027305 COUNTRY OF REF DOCUMENT : DE
EP2622209 B1	20170517	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170309
EP2622209 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20170922	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20170828 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FI

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20170825 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20170821 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170914 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20170824 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170922 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20170830 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170915 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20170818 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170911 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20170818 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI PAYMENT DATE : 20170818 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20170823 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170823 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20170825 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170912 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20170823 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171016

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 7
EP2622209 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110926
EP2622209 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20180924	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2622209 B1	20180928	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT PAYMENT DATE : 20170816 YEAR OF FEE PAYMENT : 7
EP2622209 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2622209 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20180820 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180924 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20180917 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180921 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20181231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180817 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT PAYMENT DATE : 20180816 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20180817 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181023 YEAR OF FEE PAYMENT : 8
EP2622209 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180926
EP2622209 B1	20190515	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : UEP REF DOCUMENT NUMBER : 805436 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160608
EP2622209 B1	20190626	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2622209 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180926
EP2622209 B1	20190628	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SI REF LEGAL EVENT CODE : KO00 EFFECTIVE DATE : 20190507
EP2622209 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180926
EP2622209 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180926
EP2622209 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180927
EP2622209 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180930
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 9

EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190913 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190816 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190923 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20190813 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20190823 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20190822 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20190828 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT PAYMENT DATE : 20190816 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190919 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 9
EP2622209 B1	20310926	PEXP		Calculated Patent Term Expiry	
EP3051121 A1	20160803	LSPB	+	published / reissued	
EP3051121 A1	20161207	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20161027
EP3051121 A1	20170308	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170201
EP3051121 A1	20170830	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170804
EP3051121 B1	20180103	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3051121 B1	20180103	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP3051121 B1	20180115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3051121 B1	20180115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 960526 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180115
EP3051121 B1	20180124	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH

EP3051121 B1	20180215	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011044846 COUNTRY OF REF DOCUMENT : DE
EP3051121 B1	20180328	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2661302 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20180328
EP3051121 B1	20180525	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP3051121 B1	20180528	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20180103
EP3051121 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180503
EP3051121 B1	20180831	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180403
EP3051121 B1	20180906	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20180400761 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20180829
EP3051121 B1	20180924	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP3051121 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181005	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011044846 COUNTRY OF REF DOCUMENT : DE
EP3051121 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180924 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20180820 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180917 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180921 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20181212	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20181005
EP3051121 B1	20181231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180817 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20180817 YEAR OF FEE PAYMENT : 8
EP3051121 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180103
EP3051121 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181023 YEAR OF FEE PAYMENT : 8

EP3051121 B1	20190626	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP3051121 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180926
EP3051121 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180926
EP3051121 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180930
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20190823 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190923 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20190813 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190816 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190918 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190913 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20190822 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20190828 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT PAYMENT DATE : 20190813 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190919 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 9
EP3051121 B1	20310926	PEXP		Calculated Patent Term Expiry	

ES2582311 T3	20160912	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2582311 T3	20310926	PEXP		Calculated Patent Term Expiry	
ES2661302 T3	20180328	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2661302 T3	20310926	PEXP		Calculated Patent Term Expiry	
FR2965310 A1	20120330	LSPB	+	published / reissued	
FR2965310 B1	20140919	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2965310 B1	20160908	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 7
FR2965310 B1	20170922	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
FR2965310 B1	20180924	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 9
FR2965310 B1	20190923	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 10
FR2965310 B1	20300927	PEXP		Calculated Patent Term Expiry	
HR20161075 T1	20161021	LSPB	+	published / reissued	
ID201706267 A	20170609	LSPB	+	published / reissued	
IN02243DN2013 A	20141031	LSPB	+	published / reissued	
JP2013537954 T2	20131007	LSPB	+	published / reissued	
JP2013537954 T2	20140621	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20140620
JP2013537954 T2	20150430	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150428
JP2013537954 T2	20151015	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20151015
JP2013537954 T2	20160405	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160405
JP2013537954 T2	20160902	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160902
JP2013537954 T2	20161221	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013537954 T2	20161227	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20161227
JP2013537954 T2	20170126	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170117
JP2013537954 T2	20170127	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6080761 COUNTRY OF REF DOCUMENT : JP
JP6080761 B2	20170215	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6080761 B2	20130708	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20130326
JP6080761 B2	20170105	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6080761 B2	20170124	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6080761 B2	20170127	LSGT	+R150	特許証 (Patent certificate)	
JP6080761 B2	20191219	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191213
JP6080761 B2	20191224	LSFE	+R250	RECEIPT OF ANNUAL	TEXT : JAPANESE

				FEES	INTERMEDIATE CODE: R250
JP6080761 B2	20310926	PEXP		Calculated Patent Term Expiry	
KR20130139245 A	20131220	LSPB	+	published / reissued	
KR20130139245 A	20161027	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
MX2013003494 A1	20131028	LSPB	+	published / reissued	
MX2013003494 A1	20150929	LSGT	+FG	GRANT OR REGISTRATION	
PT2622209 T	20160920	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2622209 T	20310926	PEXP		Calculated Patent Term Expiry	
PT3051121 T	20180402	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3051121 T	20310926	PEXP		Calculated Patent Term Expiry	
SI2622209 T1	20161028	LSGT	+	granted / extensions (spc, cpc, pte)	
SI2622209 T1	20310926	PEXP		Calculated Patent Term Expiry	
TH130384 A	20131220	LSPB	+	published / reissued	
TR201611485 T4	20161121	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201611485 T4	20310926	PEXP		Calculated Patent Term Expiry	
TW201229383 A	20120716	LSPB	+	published / reissued	
TWI575153 B	20170321	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI575153 B	20310927	PEXP		Calculated Patent Term Expiry	
US2012274070 AA	20121101	LSPB	+	published / reissued	
US2012274070 AA	20140611	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014246860 AA	20140904	LSPB	+	published / reissued	
US2014246860 AA	20150812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATURE AND PEOPLE FIRST, FRANCE OLDPARTY : CHANGE OF ADDRESS; ASSIGNOR:NATURE AND PEOPLE FIRST; REEL/FRAME:036334/0707 EFFECTIVE DATE : 20150713
US2014246860 AA	20151104	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8766469 BB	20140701	LSGT	+	granted / extensions (spc, cpc, pte)	
US8766469 BB	20120627	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATURE AND PEOPLE FIRST, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PAYRE, DENIS; PISTERMAN, PIERRE; PISTERMAN, PATRICE; SIGNING DATES FROM 20120607 TO 20120616; REEL/FRAME:028456/0425
US8766469 BB	20140611	LSGT	PAT1	Patented Case	
US8766469 BB	20180102	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8766469 BB	20311122	PEXP		Calculated Patent Term Expiry (PTA 57 days)	
US9194360 BB	20151124	LSGT	+	granted / extensions (spc, cpc, pte)	
US9194360 BB	20151022	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9194360 BB	20151104	LSGT	PAT1	Patented Case	
US9194360 BB	20190430	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US9194360 BB	20340317	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO12045952 A1	20120412	LSPB	+	published / reissued	
WO12045952 A1	20110926	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201180046455.1 COUNTRY OF REF DOCUMENT : CN
WO12045952 A1	20120626	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13519280 COUNTRY OF REF DOCUMENT : US
WO12045952 A1	20130305	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011773766 COUNTRY OF REF DOCUMENT : EP
WO12045952 A1	20130318	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12013500504 COUNTRY OF REF DOCUMENT : PH
WO12045952 A1	20130321	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137007124 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12045952 A1	20130326	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013529699 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12045952 A1	20130326	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2013/003494 COUNTRY OF REF DOCUMENT : MX
WO12045952 A1	20130327	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12045952 A1	20130416	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201390395 COUNTRY OF REF DOCUMENT : EA
WO12045952 A1	20160614	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112013007211 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130327
WO12045952 A1	20160617	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : IDP00201604061 COUNTRY OF REF DOCUMENT : ID