

Search history

Search 1: FT=(EXPANSION~ OR DILATATION~ AND JOINT~ AND CONCRETE~) (Results 32372)

Search 2: FT=(EXPANSION~ OR DILATATION~ AND JOINT~ AND CONCRETE~) AND IC =(E01C) (Results 3438)

Search 3: FT=(EXPANSION~ AND JOINT~ AND FLOOR~ AND WAVE~) AND IC =(E01C) (Results 73)

Title: MODULAR, STACKABLE PLATFORM, USED IN THE CONSTRUCTION OF CYCLE TRACKS. ; MODULAR, STACKABLE PLATFORM, USED IN THE CONSTRUCTION OF CYCLE TRACKS. (MACHINE-TRANSLATION BY GOOGLE TRANSLATE, NOT LEGALLY BINDING)

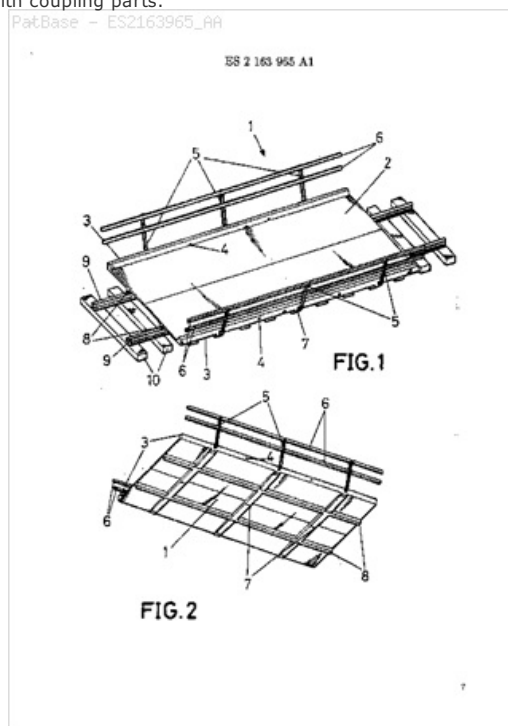
Abstract: Modular, stackable platform, used in the construction of cycle tracks, consisting of rectangular **floor** parts (1) to form straight paths and trapezoidal **floor** parts (30) to produced the curved sections, made from concrete, with lateral braces (3) and (32) respectively, and lower longitudinal (8) and (35) and transverse (7) and (36) braces emerging from the handrails (7) and (36) or protective barriers, being connected by **expansion joints** (18) with coupling parts.

Classifications:

International (IPC 8-9): E01C15/00 (Advanced/Invention);
E01C15/00 (Core/Invention)

International (IPC 1-7): E01C15/00

CPC: E01B2/00 E01B26/00



Family:

Publication number	Publication date	Application number	Application date
ES2163965 AA	20020201	ES19990000388	19990225
ES2163965 BA	20030216	ES19990000388	19990225

Priority:

ES19990000388 19990225

Probable Assignee:

PRIETO TARRADAS FERNANDO

Assignee(s): (std):

PRIETO TARRADAS FERNANDO

Inventor(s): (std):

PRIETO TARRADAS FERNANDO

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
ES2163965 AA	20020201	LSPB	+	published / reissued	
ES2163965 AA	20020201	LSES	+EC2A	SEARCH REPORT PUBLISHED	DATE OF REF DOCUMENT : 20020201 KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) : EFFECTIVE DATE : 20020201
ES2163965 BA	20030216	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2163965 BA	20030216	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 2163965B1 COUNTRY OF REF DOCUMENT : ES
ES2163965 BA	20180807	LSLE	-FD2A	ANNOUNCEMENT OF LAPSE IN SPAIN	EFFECTIVE DATE : 20180807
ES2163965 BA	20190225	PEXP		Calculated Patent Term Expiry	

Title: ARTIFICIAL SKI TRACK - FROM RUBBER-BASED AND PLASTIC SLIDE LAYER

Abstract: Slide coating for a ski-run without natural or artificial snow, esp. as a summer ski run, comprising a rubber-elastic underlayer on which a sliding layer of plastic with good sliding properties is firmly bonded.

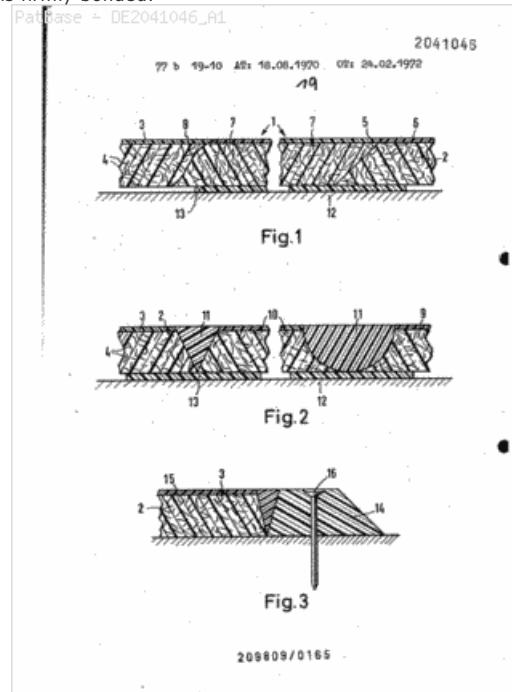
Classifications:

International (ipc 8-9): E01C13/12 (Advanced/Invention);
E01C13/00 (Core/Invention)

International (ipc 1-7): A63C19/10 E01C13/00

CPC: E01C13/12

European: E01C13/12



Family:

Publication number	Publication date	Application number	Application date
DE2041046 A1	19720224	DE19702041046	19700818

Priority:

DE19702041046 19700818

Probable Assignee: KRAIBURG GUMMI

Assignee(s): (std): KRAIBURG GUMMI

Assignee(s): GUMMIWERK KRAIBURG GMBH AND CO

Inventor(s): (std): SCHMIDT PETER

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE2041046 A1	19720224	LSPB	+	published / reissued	

Title: TRAFFIC/TRANSPORTATION SYSTEM

Abstract: PCT No. PCT/JP95/01350 Sec. 371 Date Apr. 10, 1998 Sec. 102(e) Date Apr. 10, 1998 PCT Filed Jul. 4, 1995 PCT Pub. No. WO97/02167 PCT Pub. Date Jan. 23, 1997 In a transportation/logistics system in which a pallet/vehicle with an automobile/container mounted/fixed thereon travels, a normal steering operation is carried out by changing the direction of the wheels (including tires) by an electronically controlled automatic steering system on the basis of steering information, whereby comfortable travel and a smooth turns are obtained. When the pallet/vehicle is about to run off a lane on which it travels, the run-off thereof is prevented physically and mechanically since a fin provided on the pallet/vehicle is inserted in a groove provided in a road, whereby a safe traffic/transportation system is obtained. The pallet/vehicle obtains a driving force by a gap length regulated/controlled linear induction motor so that the pallet/vehicle can travel at high speeds. In diverging (branching) and merging (converging) points, the diverging (branching)/merging (converging) of the pallet/vehicles is practiced by steering the wheels (tires) by the automatic steering system, and the pallet/vehicle advances with the fin inserted in a groove in a main line or a ramp, whereby a reliable, safe traffic/transportation system adapted to practice high-speed diverging (branching) is obtained. At the exit/entrance of the present invention to/from a general road, a mode interchange is provided which is adapted to convert a traveling mode of an automobile/container, and mounts and fixes an automobile/container on the pallet/vehicle and unfastens such automobile/container.

Classifications:

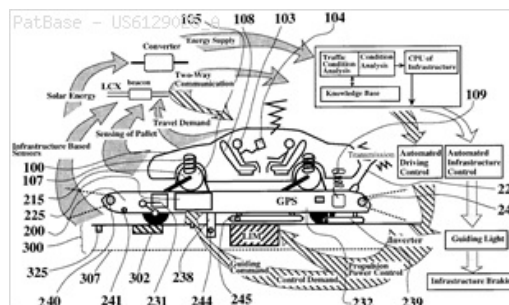
International (IPC 8-9): B60P3/07 B61B13/08 B62D1/26 B62D37/00 B62D39/00 (Advanced/Invention); B60P3/06 B61B13/08 B62D1/00 B62D37/00 B62D39/00 (Core/Invention)

International (IPC 1-7): B60F1/04 B60L13/04 B60R19/24 B60R21/00 B61B13/00 B61B13/08 B61D3/18 B61J3/00 B61K1/00 B62D1/28 B62D37/02 E01B25/28 E01C1/00 G08G1/00

CPC: Y02T90/12 Y02T90/125 B60L2200/26 Y02T90/121 Y02T10/7072 Y02P90/60 B60L50/51 B60L53/36 B60L53/39 B60L53/126 B60L5/005 B60L9/24 B60L13/03 B60L15/38 B60L2200/44 B60L2240/70 B60L2260/32 B60P3/07 B60T2201/08 B60T2201/083 B60T2201/087 B61B13/08 B62D1/26 B62D37/00 B62D39/00 Y02T10/7005 Y02T10/7291 Y02T30/30 Y02T30/40 Y02T90/122 Y02T90/14 Y02T90/16

European: B60L11/18C B60L11/18L5 B60L11/18L7C2B B60L11/18L7C4 B60L11/18L7J B60L13/03 B60L15/38 B60L5/00B B60L9/24 B60P3/07 B61B13/08 B62D1/26 B62D37/00 B62D39/00 L60L200/44 L60L240/70 L60L260/32 L60T201/08 L60T201/083 L60T201/087 Y02T10/70B Y02T10/70J4 Y02T10/72D8 Y02T30/30 Y02T30/40 Y02T90/12D Y02T90/12L Y02T90/14 Y02T90/16 Y02T90/16D

US: 104/288 104/292 104/88.01 104/88.02



Family:

Publication number	Publication date	Application number	Application date
AU199528987 A1	19970205	AU19950028987	19950704
US6129025 A	20001010	US19980983292	19980410
WO9702167 A1	19970123	WO1995JP01350	19950704

Priority:

WO1995JP01350 19950704

Probable Assignee: MINAKAMI HIROYUKI

Assignee(s): (std): MINAKAMI MOTOYUKI ; MINAKAMI HIROYUKI ; HIROYUKI MINAKAMI

Inventor(s): (std): MINAKAMI MOTOYUKI ; MINAKAMI HIROYUKI

Inventor(s): HIROYUKI MINAKAMI ; MOTOYUKI MINAKAMI

Designated states: AM AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK ES FI FR GA GB GE GN GR HU IE IT JP KE KG KR KZ LK LT LU LV MC MD MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SI SK SN SZ TD TG TJ TT UA UG US UZ VN

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU199528987 A1	19970205	LSPB	+	published / reissued	
US6129025 A	20001010	LSGT	+	granted / extensions (spc, cpc, pte)	
US6129025 A	20041012	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US6129025 A	20041207	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20041010
US6129025 A	20060125	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6129025 A	20060130	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20060131
US6129025 A	20060131	LSGT	PAT1	Patented Case	
US6129025 A	20060131	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6129025 A	20071108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US6129025 A	20121004	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6129025 A	20180410	PEXP		Calculated Patent Term Expiry	
WO9702167 A1	19970123	LSPB	+	published / reissued	
WO9702167 A1	19980410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08983292 COUNTRY OF REF DOCUMENT : US
WO9702167 A1	19980507	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9702167 A1	19980819	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO9702167 A1	19990104	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : CA

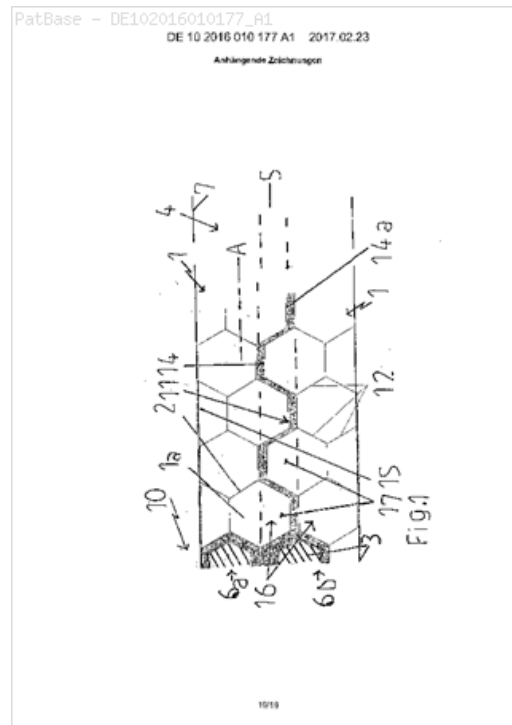
Title: EINFACH VERLEGBARE HOCH BEANSPRUCHBARE VORRICHTUNG ZUR DAUERHAFTEN ABDECKUNG EINER BODENFUGE ZUM DAUERHAFTEN STOSSFREIEN BEFAHREN DERSELBEN MIT EINEM HOHEN LASTAUFNAHMEVERMOEGEN UND EIN LEICHT HANDHABBARES VERFAHREN ZUM DAUERHAFTEN ABDECKEN STARK BEANSPRUCHTER BODENFUGEN EASILY DEPLOYABLE HIGH LOADING DEVICE TO PERMANENT COVER OF A GROUND **JOINT** TO THE PERMANENT SHOCK FREE DRIVING WITH A HIGH LOAD CAPACITY AND AN LIGHTWEIGHT MANAGEABLE PROCESS TO PERMANENT COVER HEAVY OF LOADED **FLOOR JOINTS** (Machine translation)

Abstract: Source: DE102016010177A1 [DE] Die Erfindung betrifft eine Gittereinheit als Einlage in einen Fugenkanal zur Abdeckung einer Fuge, eine einfach verlegbare Vorrichtung zur Abdeckung einer Fuge, vorzugsweise einer Bodenfuge, eines Bauwerks, insbesondere eines Industriebodens, mit einem hohen Lastaufnahmevermoegen und zum dauerhaften stossfreien Befahren derselben mit einer plattenfoermigen Gittereinheit sowie ein Verfahren zum dauerhaften Abdecken von Fugen, insbesondere Bodenfugen, eines Bauwerks oder Bauwerkteils, insbesondere einer Lagerhalle oder Produktionshalle, mit einer Vorrichtung und erschuetterungsfreien Befahren derselben mit Fahrzeugen, insbesondere Flurfoerderfahrzeugen, welche Vorrichtung eine Gittereinheit mit Durchbruechen umfasst, gekennzeichnet durch die Verfahrensschritte: Ausheben eines Fugenkanals laengs der Fuge, Reinigen der Sohle des Fugenkanals, Auftragen einer einen Haftvermittler enthaltenden Sohlenschicht, Auflegen des Gittereinheit auf die Sohlenschicht, Eingiessen des kunststoffartigen Fuellmaterials mit PMMA in die Zellen des Gittereinheit, Aushaerten des Fuellmaterials und anschliessendes Polieren der Oberseiten von Gitter, Fuellmaterial sowie von den Fugenkanal begrenzenden Bereichen des Bodens. **Machine translation:** The invention relates to a grid unit as inlay in a **joint** channel to cover a **joint**, an easily deployable device to cover a **joint**, preferably a ground **joint**, a building, an industrial **floor**, in particular, with a high load capacity and durable shock-free driving on them with a plate-shaped grid unit as well as a process to permanent cover of **joints**, in particular ground **joints**, a structure or building supply, in particular a warehouse or production hall, with a device and vibration-free driving on the same with vehicles, especially industrial trucks, what device includes a grid unit with breakthroughs, characterized by the process steps: raise a **joint** channel along the **joint**, clean the sole of **joint** channel, applying a sole layer containing a bonding agent, placing the grid unit on the sole layer, pouring of the plastic-like filler with PMMA in the cells of the grid unit, hardening of the filler and then polishing of the top grille, Filling material, as well as limiting the **joint** channel areas of the soil.

Classifications:

International (IPC 8-9): E01C11/06 E04B1/68
E04F15/14 (Advanced/Invention)

CPC: E01C11/06 E04B1/6812 E01C11/10 E01C11/123



Family:

Publication number	Publication date	Application number	Application date
DE102016010177 A1	20170223	DE201610010177	20160819

Priority:

DE201510010992 20150820

Probable Assignee:

TEBROKE ANSELM

Assignee(s): (std):

TEBROKE ANSELM

Inventor(s): (std):

TEBROKE ANSELM

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102016010177 A1	20170223	LSPB	+	published / reissued	
DE102016010177 A1	20170320	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102016010177 A1	20180620	LSES	R016	RESPONSE TO EXAMINATION	

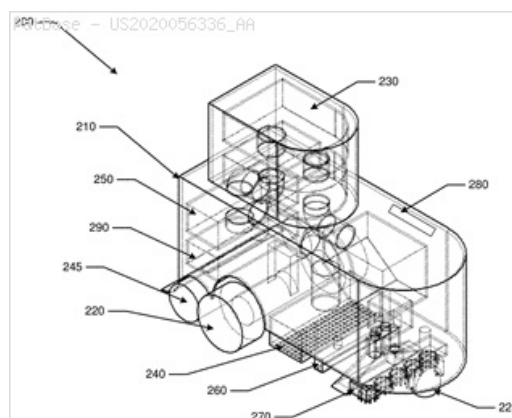
Title: METHODS AND APPARATUS FOR MOBILE ADDITIVE MANUFACTURING

Abstract: The present disclosure provides various advancements for mobile and automated processing utilizing additive manufacturing. The present disclosure includes methods for the utilization of mobile and automated processing apparatus and may include examples of sealcoating operations. In some examples, omnidirectional drive systems such as Mecanum wheels may create novel operational aspects. Artificial intelligence techniques may enhance operations and may be used to create model for the processing apparatus.

Classifications:

International (IPC 8-9): B29C35/08 B33Y10/00 B33Y30/00 B33Y50/02 B41J33/40 B60B19/12 E01C19/17 G05B19/18 G05B19/23 G06T3/00 (Advanced/Invention)

CPC: E01C19/17 E01C19/004 E01C23/07 E01C23/0966 E01C23/0973 E01C23/098 G05D1/0246 G05D2201/0202 G06K9/6221 G06K9/00 G05D1/0219 B29C64/227 B29C64/393 B33Y30/00 B33Y50/02 B33Y10/00



Family:

Publication number	Publication date	Application number	Application date
US2020056336 AA	20200220	US20180324058	20180814
WO20036594 A1	20200220	WO2018US46749	20180814

Priority:

US20180324058 20180814 WO2018US46749 20180814

Probable Assignee: FLITSCH FREDERICK

Assignee(s): (std): FLITSCH FREDERICK ; FLITSCH FREDERICK A ; FLITSCH ROBERT ; FLITSCH ROBERT A

Inventor(s): (std): FLITSCH FREDERICK ; FLITSCH FREDERICK A ; FLITSCH ROBERT ; FLITSCH ROBERT A

Agent(s): KINCART JOSEPH

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
US2020056336 AA	20200220	LSPB	+	published / reissued	
US2020056336 AA	20200224	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
WO20036594 A1	20200220	LSPB	+	published / reissued	

Title: MOVEMENT **JOINT**

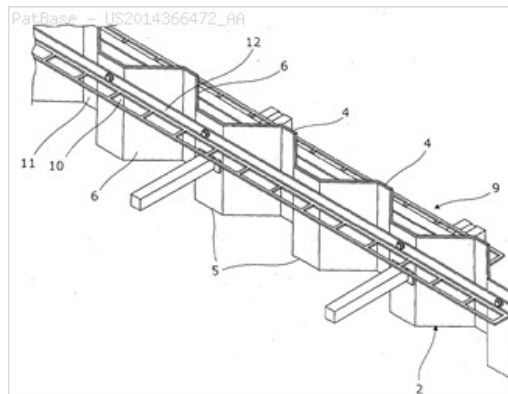
Abstract: A free movement, aris protection, construction **joint** has a pair of aris protection members formed complementarily from strips of sheet with a continuous trapezium **wave** form. A divider one of the members is typically 100 mm deep for a nominal 0.1 m deep slab. The other one is typically 50 mm deep. The members are of steel plate. The **wave** form is comprised of flanges extending in the length of the **joint** and of webs angled to the flanges and the length of the **joint**. The flanges are spaced on opposite sides of a mid-plane of the **joint**. The members are bolted together with flangible nylon bolts, with their top (in use) edges flush. Welded to the outer ones of the flanges are L strips having apertures in their flats extending from the flanges for anchoring the **joint** to its slabs.

Classifications:

International (IPC 8-9): E01C11/02 E01C11/04 E01C11/06 E01C11/08 E01C11/14 E01C11/16 E01D19/06 E04B5/36 E04F15/14 (Advanced/Invention)

CPC: E04F15/14 E01C11/08 E01C11/04 E01C11/06 E01C11/14 E01D19/06 E01D19/062

US: 52/396.05 52/745.05



Family:

Publication number	Publication date	Application number	Application date
AU2012307124 AA	20130321	AU20120307124	20120831
AU2012307124 BB	20170413	AU20120307124	20120831
DE602012041387 D1	20180125	DE201260041387T	20120831
EP2756133 A1	20140723	EP20120772351	20120831
EP2756133 B1	20171227	EP20120772351	20120831
ES2664049 T3	20180418	ES20120772351T	20120831
GB201115940 A0	20111026	GB20110015940	20110914
GB201215617 A0	20121017	GB20120015617	20120831
GB2494760 A1	20130320	GB20120015617	20120831
GB2494760 B2	20170712	GB20120015617	20120831
MX2014003126 A1	20140922	MX20140003126	20120831
MX363235 B	20190315	MX20140003126	20120831
NZ620801 A	20160226	NZ20120620801	20120831
PL2756133 T3	20180831	PL20120772351T	20120831
PT2756133 T	20180403	PT20120772351T	20120831
US2014366472 AA	20141218	US20120344083	20120831
US9765485 BB	20170919	US20120344083	20120831
WO13038123 A1	20130321	WO2012GB00694	20120831

Priority:

GB20110015940 20110914 EP20120772351 20120831 WO2012GB00694 20120831

Probable Assignee: PERMABAN LTD

Assignee(s): (std): KEEN ANDREW ; PERMABAN LTD ; RCR FLOORING PRODUCTS LTD

Assignee(s): RCR FLOORING PRODUCTS LTD IVYBRIDGE ; PERMABAN LIMITED

Inventor(s): (std): KEEN ANDREW ; ANDREW KEEN

Agent(s): PAPPAS IP; IP GATEWAY PATENT AND TRADE MARK ATTORNEYS PTY LTD; BUSCHHOFF HENNICKE ALTHAUS; BROOKS NIGEL SAMUEL; BAY STATE IP LLC; NIGEL BROOKS CPA

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 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
AU2012307124 AA	20130321	LSPB	+	published / reissued	
AU2012307124 AA	20170810	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012307124 BB	20170413	LSGT	+	granted / extensions (spc, cpc, pte)	

AU2012307124 BB	20320831	PEXP		Calculated Patent Term Expiry	
EP2756133 A1	20140723	LSPB	+	published / reissued	
EP2756133 A1	20140723	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140206
EP2756133 A1	20161019	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20160915
EP2756133 A1	20170419	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : RCR FLOORING PRODUCTS LIMITED
EP2756133 A1	20170816	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170720
EP2756133 B1	20171227	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2756133 B1	20171227	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2756133 B1	20171229	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2756133 B1	20180115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 958403 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180115
EP2756133 B1	20180124	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2756133 B1	20180125	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012041387 COUNTRY OF REF DOCUMENT : DE
EP2756133 B1	20180418	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2664049 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20180418
EP2756133 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20171227
EP2756133 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180327
EP2756133 B1	20180510	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2756133 B1	20180515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 958403 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171227
EP2756133 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-

				EPO]	LIMIT LAPSED DATE : 20171227
EP2756133 B1	20180531	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 : 20180328
EP2756133 B1	20180531	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 : 20180327
EP2756133 B1	20180531	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 : 20171227
EP2756133 B1	20180531	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 : 20171227
EP2756133 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 : 20171227
EP2756133 B1	20180709	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2756133 B1	20180731	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 : 20171227
EP2756133 B1	20180731	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 : 20171227
EP2756133 B1	20180731	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 : 20171227
EP2756133 B1	20180831	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 : 20171227
EP2756133 B1	20180831	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	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 : 20171227
EP2756133 B1	20180831	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 : 20171227
EP2756133 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 : 20180427
EP2756133 B1	20180928	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012041387 COUNTRY OF REF DOCUMENT : DE
EP2756133 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180903 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180709 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180824 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180716 YEAR OF FEE PAYMENT : 7
EP2756133 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 : 20171227
EP2756133 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20180716 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180705 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180712 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20180716 YEAR OF FEE PAYMENT : 7
EP2756133 B1	20181205	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180928
EP2756133 B1	20181231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180820 YEAR OF FEE PAYMENT : 7

				NATIONAL OFFICE TO EPO]	
EP2756133 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171227
EP2756133 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171227
EP2756133 B1	20190329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2756133 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180831
EP2756133 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180831
EP2756133 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180831
EP2756133 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180831
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190830 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190813 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190902 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20190816 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190830 YEAR OF FEE PAYMENT : 8

EP2756133 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20190809 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190813 YEAR OF FEE PAYMENT : 8
EP2756133 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180831
EP2756133 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171227
EP2756133 B1	20320831	PEXP		Calculated Patent Term Expiry	
ES2664049 T3	20180418	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2664049 T3	20320831	PEXP		Calculated Patent Term Expiry	
GB201115940 A0	20130313	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB2494760 A1	20130320	LSPB	+	published / reissued	
GB2494760 B2	20170712	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2494760 B2	20320831	PEXP		Calculated Patent Term Expiry	
MX2014003126 A1	20140922	LSPB	+	published / reissued	
MX363235 B	20190315	LSGT	+	granted / extensions (spc, cpc, pte)	
MX363235 B	20320831	PEXP		Calculated Patent Term Expiry	
NZ620801 A	20160226	LSPB	+	published / reissued	
NZ620801 A	20160527	LSGT	+PSEA	PATENT SEALED	
NZ620801 A	20160930	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 31 AUG 2017 BY MCCABE + COMPANY LIMITED EFFECTIVE DATE : 20160912
NZ620801 A	20170728	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 31 AUG 2018 BY TORIA TURNER EFFECTIVE DATE : 20170727
NZ620801 A	20180727	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 31 AUG 2019 BY TORIA TURNER EFFECTIVE DATE : 20180709
NZ620801 A	20190726	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 31 AUG 2020 BY TORIA TURNER EFFECTIVE DATE : 20190719
PL2756133 T3	20180831	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2756133 T	20180403	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2756133 T	20320831	PEXP		Calculated Patent Term Expiry	
US2014366472 AA	20141218	LSPB	+	published / reissued	
US2014366472 AA	20170511	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of	

				Publications	
US2014366472 AA	20170814	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2014366472 AA	20170815	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014366472 AA	20170830	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9765485 BB	20170919	LSGT	+	granted / extensions (spc, cpc, pte)	
US9765485 BB	20141114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PERMABAN LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KEEN, ANDREW; REEL/FRAME:034173/0638 EFFECTIVE DATE : 20140219
US9765485 BB	20151124	LSSES	NFA1	Non Final Action Mailed	
US9765485 BB	20170830	LSGT	PAT1	Patented Case	
US9765485 BB	20320831	PEXP		Calculated Patent Term Expiry	
WO13038123 A1	20130321	LSPB	+	published / reissued	
WO13038123 A1	20140205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012772351 COUNTRY OF REF DOCUMENT : EP
WO13038123 A1	20140227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2012307124 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120831 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13038123 A1	20140311	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14344083 COUNTRY OF REF DOCUMENT : US
WO13038123 A1	20140314	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO13038123 A1	20140314	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2014/003126 COUNTRY OF REF DOCUMENT : MX

Title: FUGENFREIE BETONSTRASSE **JOINT** FREE CONCRETE ROAD (Machine translation)

Abstract: Source: DE1459765A1 [DE] (Claim 1) Patentansprüche 1) Betondecken mit grosser Flaechei insbesondere Betonstrassen, dadurch gelenkzeichneth daes sie zur Erreichung einer fugen freien Oberflaeche in ihre'r Haup , tebene in mehr als halber Deckenhoehe durch trennende Mittel in viele kleine Flaecheng Zellenkoerperg aufgeloeset werden und keine, zu groesseren Platten bindende Armierung haben.

Machine translation: (Claim 1) claims 1) Concrete slabs with large Flaechei particular concrete roads, thereby gelenkzeichneth daes they will be disbanded in order to achieve a **joint**-free surface in ihre'r predom, tebene in more than half the ceiling height by dividing funds into many small unit area Zellenkoerperg and no, have bigger plates binding reinforcement td.

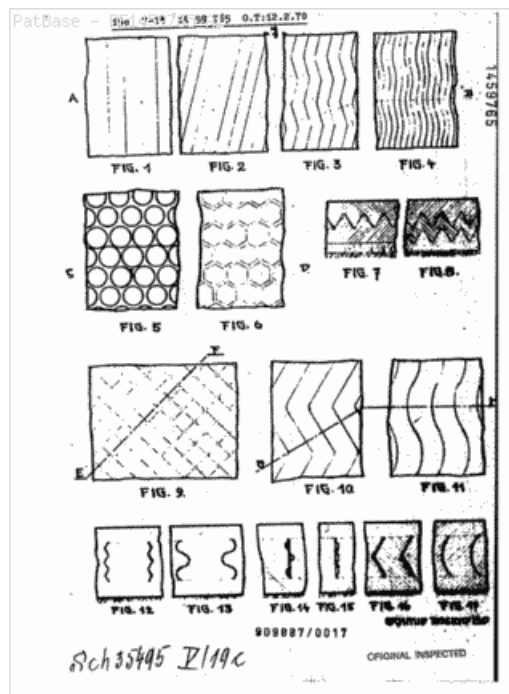
Classifications:

International (IPC 8-9): E01C7/14 (Advanced/Invention);
E01C7/00 (Core/Invention)

International (IPC 1-7): E01C7/14

CPC: E01C7/145

European: E01C7/14C



Family:

Publication number	Publication date	Application number	Application date
DE1459765 A1	19700212	DE19641459765	19640718

Priority:

DE1964SC35495 19640718

Probable Assignee:

SCHMIDT OTTO

Assignee(s): (std):

SCHMIDT OTTO

Inventor(s): (std):

SCHMIDT OTTO

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE1459765 A1	19700212	LSPB	+	published / reissued	

Title: METHOD OF REINFORCED CEMENTITIOUS CONSTRUCTION BY HIGH SPEED EXTRUSION PRINTING AND APPARATUS FOR USING SAME

Abstract: The present invention relates to methods and apparatuses for an automated reinforced concrete construction system for onsite slip-form molding and casting a variety of cementitious mixes in a cast in place leave in place externally moldable flexible reinforced containment sleeve providing a wide variety of interchangeable full-scale molding configurations simultaneously optimizing a wide variety of cementitious mix curing characteristics, further having optional internal reinforcement net(s), for layer wise interlocking additive printed brick deposition providing improved slip-form mold casting of a wide variety of reinforced concrete structures; the present invention further includes a variety of operating platforms suitable for on and offsite construction as disclosed herein.

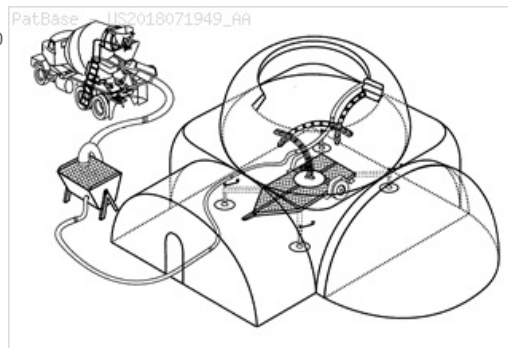
Classifications:

International (IPC 8-9): B28B B28B1/00 B28B1/30 B28B17/00 B33Y10/00 B33Y30/00 B33Y50/02 E01C19/48 E04B1/16 E04B1/35 E04G11/22 E04G21/02 E04G21/04 E04G21/14 (Advanced/Invention); E04B1/32 E04G21/04 (Advanced/Non-invention); B28B (Subclass/Invention)

International (IPC 1-7): B28B1/00 E01C19/48

CPC: B33Y10/00 B33Y30/00 E04B1/32 E04B1/3505 E04B2103/02 E04G21/0463 B28B1/001 B28B17/0081 B33Y50/02 E04B1/16 E04B1/166 E04G21/04 B33Y70/00 B33Y80/00 C04B28/02 C04B2111/00181 E04G11/20

US: 1/1 264/34



Family:

Publication number	Publication date	Application number	Application date
AU2017326927 AA	20190321	AU20170326927	20170913
BR112019004893 A2	20190611	BR20191104893	20170913
CA3036127 AA	20190305	CA20173036127	20170913
CL2019000642 A1	20190809	CL20190000642	20190313
CN109923264 A	20190621	CN201780068252	20170913
EA201990497 A1	20190930	EA20190090497	20170913
EP3513003 A2	20190724	EP20170851192	20170913
ID201903703 A	20190524	ID2019PID02230	20170913
IL265324 A0	20190530	IL20170265324	20170913
IN201917008574 A	20190531	IN201917008574	20190305
JP2019537521 T2	20191226	JP20190513885T	20170913
KR20190057078 A	20190527	KR20197010158	20170913
SG11201901805T A1	20190429	SG20191101805	20170913
US2018071949 AA	20180315	US20170732072	20170913
US2020061866 AA	20200227	US20190535028	20190807
US10486330 BB	20191126	US20170732072	20170913
WO18052469 A2	20180322	WO2017US00055	20170913
WO18052469 A3	20180426	WO2017US00055	20170913

Priority:

US20160495514P 20160914 US20170732072 20170913 WO2017US00055 20170913
CL20190000642 20190313 US20190535028 20190807

Probable Assignee: ARMATRON SYSTEMS LLC

Assignee(s): (std): GILES BRAN ; GILES BRIAN ; GILES BRIAN C ; ARMATRON SYSTEMS LLC

Inventor(s): (std): GILES BRAN ; GILES BRIAN ; GILES BRIAN C ; BRIAN C GILES

Agent(s): SHELSTON IP PTY LTD; BORDEN LADNER GERVAIS LLP; ESTUDIO CAREY LTDA; HEINZE EKKEHARD; GEORGE WIDJOJO; INVENTION TO PATENT SERVICES; HOBSON ALEX; MCKINNEY JEFFREY 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 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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU2017326927 AA	20190321	LSPB	+	published / reissued	
BR112019004893 A2	20190611	LSPB	+	published / reissued	
CA3036127 AA	20190305	LSPB	+	published / reissued	
CL2019000642 A1	20190809	LSPB	+	published /	

CN109923264 A	20190621	LSPB	+	reissued published / reissued	
CN109923264 A	20190621	LSPB	PB01	PUBLICATION	
EA201990497 A1	20190930	LSPB	+	published / reissued	
EP3513003 A2	20190724	LSPB	+	published / reissued	
EP3513003 A2	20190724	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190412
ID201903703 A	20190524	LSPB	+	published / reissued	
IN201917008574 A	20190531	LSPB	+	published / reissued	
JP2019537521 T2	20191226	LSPB	+	published / reissued	
JP2019537521 T2	20190917	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20190917
KR20190057078 A	20190527	LSPB	+	published / reissued	
SG11201901805T A1	20190429	LSPB	+	published / reissued	
US10486330 BB	20191126	LSGT	+	granted / extensions (spc, cpc, pte)	
US10486330 BB	20171023	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10486330 BB	20200117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARMATRON SYSTEMS, LLC, ARIZONA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: GILES, BRIAN C; REEL/FRAME: 051548/0316 EFFECTIVE DATE : 20200114
US10486330 BB	20371101	PEXP		Calculated Patent Term Expiry (PTA 49 days)	
US2018071949 AA	20180315	LSPB	+	published / reissued	
US2018071949 AA	20190103	LSES	NFA1	Non Final Action Mailed	
US2018071949 AA	20190205	LSES	NFA1	Non Final Action Mailed	
US2018071949 AA	20190520	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018071949 AA	20190807	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2018071949 AA	20190812	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018071949 AA	20191106	LSGT	PAT1	Patented Case	
US2018071949 AA	20191106	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2020061866 AA	20200227	LSPB	+	published / reissued	
US2020061866 AA	20200117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARMATRON SYSTEMS, LLC, ARIZONA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: GILES, BRIAN C; REEL/FRAME: 051548/0316 EFFECTIVE DATE : 20200114
US2020061866 AA	20200205	LSES	+NAM1	Notice of Allowance	

				Mailed -- Application Received in Office of Publications	
US2020061866 AA	20200410	LSSE	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2020061866 AA	20200507	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
WO18052469 A2	20180322	LSPB	+	published / reissued	
WO18052469 A3	20190305	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 3036127 COUNTRY OF REF DOCUMENT : CA
WO18052469 A3	20190307	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2019513885 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18052469 A3	20190315	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO18052469 A3	20190321	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2017326927 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20170913 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18052469 A3	20190409	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 20197010158 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18052469 A3	20190426	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2017851192 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20190415
WO18052469 A3	20190611	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 112019004893 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190313

Title: Methods for sealing and resealing concrete using microwave energy

Abstract: Portland cement concrete at a roadbed, bridge deck or the like is quickly and deeply heated and dried by directing microwave energy into the concrete and by applying hot gas to the surface. A layer of thermoplastic sealant is applied to the hot concrete followed by an overlayer of asphaltic concrete having a higher softening temperature than the sealant layer. Compaction then produces a composite pavement which is sealed against water intrusion and which can be quickly, easily and economically resealed and resurfaced at a later time using little or no additional paving materials. Resealing and resurfacing is accomplished by deeply reheating all three layers by microwave irradiation followed by recompaction. If cracking and deterioration are severe, the asphaltic concrete layer may be remixed and rescreeding between the reheating and recompaction steps. Both the initial production of the composite pavement and the restoration processes can be accomplished on a continuous process basis while traveling along the roadbed, bridge deck or the like.

Classifications:

International (IPC 8-9): E01C19/10 E01C19/48 E01C23/00 E01C23/06 E01C23/12 E01C23/14 E01C7/06 E01C7/32 E01C7/35 E01D19/08

H05B6/80 (Advanced/Invention);

E01C19/00 E01C19/02 E01C23/00 E01C7/00 E01D19/00

H05B6/80 (Core/Invention)

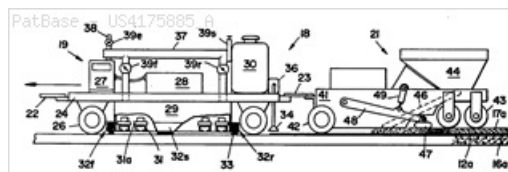
International (IPC 1-7): E01C19/48 E01C23/00 E01C23/06 E01C23/12 E01C23/14 E01C7/06 E01C7/18 E01C7/32 E01C7/35

CPC: E01C23/14 H05B6/80 E01C19/1004 E01C23/065 E01C7/32

E01C7/353 E01D19/083

European: E01C19/10B E01C23/06B E01C23/14 E01C7/32 E01C7/35C E01D19/08B H05B6/80

US: 219/699 299/14 404/31 404/77 404/79 404/92 404/95



Family:

Publication number	Publication date	Application number	Application date
CA1117339 A1	19820202	CA19770292616	19771207
CA1117340 A1	19820202	CA19780317844	19781213
CA1117342 A1	19820202	CA19790331017	19790703
DE2758601 A1	19780713	DE19772758601	19771227
DE2854263 A1	19790628	DE19782854263	19781213
DE2926468 A1	19800110	DE19792926468	19790630
GB1600259 A	19811014	GB19770053218	19771221
GB1600260 A	19811014	GB19800025997	19771221
GB2010363 A1	19790627	GB19780048493	19781214
GB2010363 B2	19820428	GB19780048493	19781214
GB2024291 A1	19800109	GB19790022905	19790702
GB2024291 B2	19821110	GB19790022905	19790702
JP1410734 C3	19871124	JP19790083385	19790630
JP1420377 C3	19880114	JP19770160979	19771229
JP53092528 A2	19780814	JP19770160979	19771229
JP54112527 A2	19790903	JP19780153250	19781213
JP55013396 A2	19800130	JP19790083385	19790630
JP62013442 B4	19870326	JP19790083385	19790630
JP62025801 B4	19870604	JP19770160979	19771229
US4175885 A	19791127	US19770860158	19771214
US4252487 A	19810224	US19780921072	19780630
US4319856 A	19820316	US19780948503	19781004

Priority:

US19770756365 19770103	CA19770292616 19771207	US19770860158 19771214
GB19770053218 19771221	US19780921072 19780630	US19780948503 19781004
CA19780317844 19781213	CA19790331017 19790703	

Probable Assignee: MICRODRY CORPORTION

Assignee(s): (std): JEPPSON M ; JEPPSON MORRIS R ; JEPPSON MORRIS RICHARD ; MICRODRY CORPORTION ; MICRODRY CORP ; JEPPSON M R

Assignee(s): MICRODRY INC

Inventor(s): (std): JEPPSON MORRIS R ; JEPPSON MORRIS RICHARD ; MOORISU RICHIIAADO JIEPUSON

Inventor(s): MOORISU RICHAAADO JEPUSON ; R JEPPSON MORRIS ; RICHARD JEPPSON MORRIS

Agent(s): KIRBY EADES GALE BAKER

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
DE2758601 A1	19780713	LSPB	+	published / reissued	
DE2758601 A1	19850307	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE2758601 A1	19881027	LSRV	-8131	REJECTION	
DE2854263 A1	19790628	LSPB	+	published / reissued	
DE2854263 A1	19860220	LSSES	+8110	REQUEST FOR	

				EXAMINATION PARAGRAPH 44	
DE2854263 A1	19881117	LSLE	-8136	DISPOSAL/NON- PAYMENT OF THE FEE FOR PUBLICATION/GRANT	
DE2926468 A1	19800110	LSPB	+	published / reissued	
DE2926468 A1	19860904	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE2926468 A1	19881013	LSRV	-8131	REJECTION	
GB1600259 A	19811014	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1600259 A	19820113	LSGT	+PS	PATENT SEALED	
GB1600259 A	19880810	LSLE	-PCNP	PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	
GB1600259 A	19971221	PEXP		Calculated Patent Term Expiry	
GB1600260 A	19811014	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1600260 A	19820113	LSGT	+PS	PATENT SEALED	
GB1600260 A	19880810	LSLE	-PCNP	PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	
GB1600260 A	19971221	PEXP		Calculated Patent Term Expiry	
GB2010363 A1	19790627	LSPB	+	published / reissued	
GB2010363 B2	19820428	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2010363 B2	19880803	LSLE	-PCNP	PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	
GB2010363 B2	19981214	PEXP		Calculated Patent Term Expiry	
GB2024291 A1	19800109	LSPB	+	published / reissued	
GB2024291 B2	19821110	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2024291 B2	19890222	LSLE	-PCNP	PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	
GB2024291 B2	19990702	PEXP		Calculated Patent Term Expiry	
JP1410734 C3	19871124	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1420377 C3	19880114	LSGT	+	granted / extensions (spc, cpc, pte)	
JP53092528 A2	19780814	LSPB	+	published / reissued	
JP54112527 A2	19790903	LSPB	+	published / reissued	
JP55013396 A2	19800130	LSPB	+	published / reissued	
JP62013442 B4	19870326	LSPB	+	published / reissued	
JP62025801 B4	19870604	LSPB	+	published / reissued	
US4175885 A	19791127	LSGT	+	granted / extensions (spc, cpc, pte)	
US4175885 A	19791127	LSGT	PAT1	Patented Case	
US4175885 A	19900410	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MICRODRY, INC., A CORP. OF KENTUCKY, KENTUCKY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:MICRODRY CORP.; REEL/FRAME:005278/0185 EFFECTIVE DATE : 19880629
US4252487 A	19810224	LSGT	+	granted / extensions (spc, cpc, pte)	

US4252487 A	19801212	LSGT	PAT1	Patented Case	
US4252487 A	19900410	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MICRODRY, INC., A CORP. OF KENTUCKY, KENTUCKY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:MICRODRY CORP.; REEL/FRAME:005278/0185 EFFECTIVE DATE : 19880629
US4319856 A	19820316	LSGT	+	granted / extensions (spc, cpc, pte)	
US4319856 A	19820316	LSGT	PAT1	Patented Case	
US4319856 A	19820316	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4319856 A	19900410	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MICRODRY, INC., A CORP. OF KENTUCKY, KENTUCKY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:MICRODRY CORP.; REEL/FRAME:005278/0185 EFFECTIVE DATE : 19880629

Title: EXPANDABLE JOINT STRUCTURE IN STRUCTURE SUCH AS ELEVATED ROAD

Abstract: PURPOSE: To facilitate execution of work by providing a lower face of a floor slab and an end crossframe member in contact with an inner face of a reinforcing member provided integrally in contact with the lower face of the floor slab integrally and providing an elastic body for water drain across the reinforcing member in a lower part of an expansion gap section.
CONSTITUTION: An end plate 4 formed in the shape of waves in the direction of which of a floor slab 3 is integrally provided at an end of the floor slab 3 made of reinforced concrete in which a reinforcing bar 11 is embedded. The floor slab 3 is provided in adjacent to it, and projection and recessed sections of the end plate 4 are provided in a condition in which they mesh to form an expansion gap section 6 mutually. A platelike reinforcing member 7 is integrally provided in contact with a lower face 3a of the floor slab 3 and an inner face 4a at a lower end of the end plate 4 by a stud dowel 10. An end crossframe member 8 formed by a channel steel member having C type cross section is integrally provided in contact with the lower face 3a of the floor slab 3 and an inner face 7a of the reinforcing member 7. Furthermore, an elastic body 9 for water drain formed by a thin plate like rubber is stretched across the reinforcing member 7 and a lower part of the expansion gap section 6.

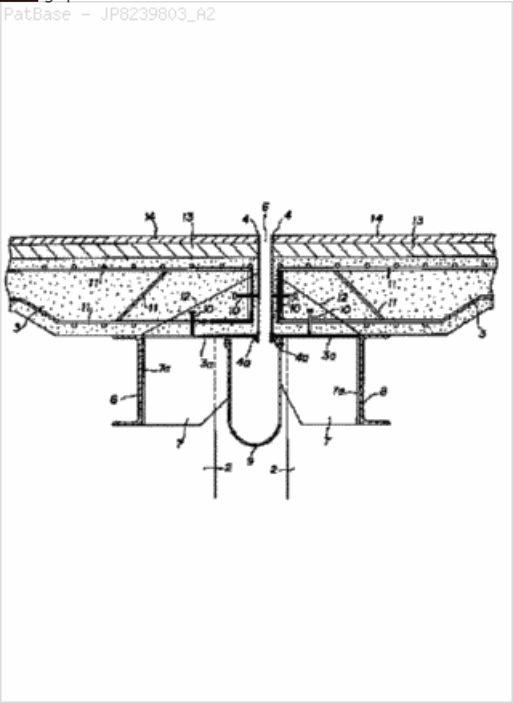
Classifications:

International (IPC 8-9): E01C11/02 E01D19/06 (Advanced/Invention);
E01C11/02 E01D19/00 (Core/Invention)

International (IPC 1-7): E01C11/02 E01D19/06

JP F-Term: 2D051 2D051/FA15 2D051/FA19 2D059 2D059/GG45

JP F-Index: E01C11/02/A E01D19/06



Family:

Publication number	Publication date	Application number	Application date
JP8239803 A2	19960917	JP19950079283	19950228

Priority:

JP19950079283 19950228

Probable Assignee:

ONE A T KK

Assignee(s): (std):

ONE A T KK

Inventor(s): (std):

AKANA HIRONA

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
JP8239803 A2	19960917	LSPB	+	published / reissued	

Title: ROLLER SKATING **FLOOR** SURFACE - HAS JUXTAPOSED TILES WITH CONNECTOR STUDS ENGAGING WITH DECK SECTIONS

Abstract: The **floor** for sports and in particular for roller skating comprises a deck formed of shaped parallel deck sections, and a multiplicity of juxtaposed tiles formed of plastics material resting on the sections and having connector studs on their bottoms for interlocking engagement with the deck sections.

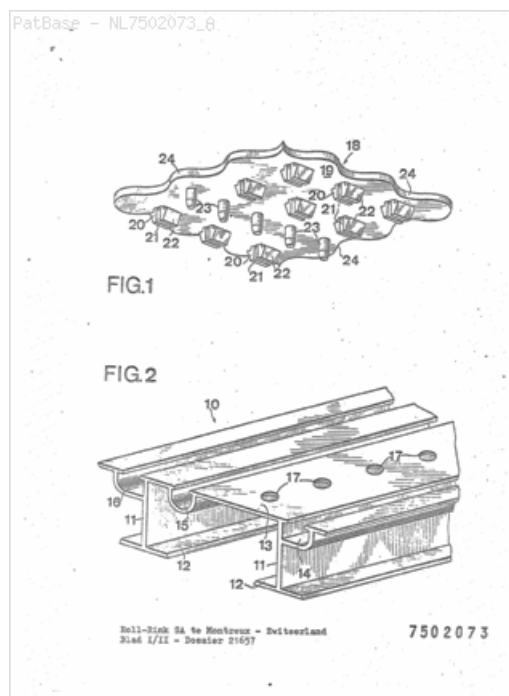
Classifications:

International (IPC 8-9): E01C13/00 E01C13/04 (Advanced/Invention); E01C13/00 (Core/Invention)

International (IPC 1-7): A63C19/10 E04F15/10

CPC: E01C13/003 E01C13/045

European: E01C13/00G E01C13/04B



Family:

Publication number	Publication date	Application number	Application date
NL7502073 A	19760824	NL19750002073	19750221

Priority:

NL19750002073 19750221

Probable Assignee: ROLL RINK SA

Assignee(s): (std): ROLL RINK SA

Assignee(s): ROLL RINK TE MONTREUX ZWITSERLAND SA ; ROLL RINK S A TE MONTREUX ZWITSERLAND

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
NL7502073 A	19760824	LSPB	+	published / reissued	
NL7502073 A	19791025	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED	

Title: METHOD OF PRODUCING PATTERNED SHAPED ARTICLE FROM PARTICLES

Abstract: A method of producing a pattern shaped article includes the steps of forming at least two different courses of dry particles overlaid on a base surface; using an air flow controller having either a suction port or a blow port or both a suction port and a blow port to effect an air flow to form a cavity corresponding to a pattern expression in at least a lower dry particle course by removing a portion of the lower dry particle course under control of at least one parameter among air pressure, air flow rate, air flow speed, air flow direction, air flow pulsation, air flow intermittence, suction port size, blow port size, suction port position and blow port position; collapsing particles of an upper dry particle course of a different type of dry particles into the cavity and allowing the particles to set into an integral mass.

Classifications:

International (IPC 8-9): A23G3/02 B28B1/00 B28B1/16 B28B1/30 B28B3/00 B32B13/00 B32B27/00 B44C1/22 B44C3/04 E01C5/06 (Advanced/Invention); A23G3/02 B28B1/14 B28B1/16 B28B1/30 B32B13/00 B32B27/00 E01C5/06 (Advanced/Non-invention); A23G3/02 B28B1/00 B28B1/16 B28B1/30 B32B13/00 B32B27/00 B44C3/00 E01C5/06 (Core/Invention); B28B3/00 (Core/Non-invention)

International (IPC 1-7): A23G3/02 B27N3/02 B28B1/14 B28B1/16 B28B1/24 B28B1/28 B28B1/30 B28B13/02 B28B19/00 B28B3/00 B32B13/00 B32B27/00 B44C1/22 B44C3/04 E01C5/06

CPC: B28B1/008 B28B13/0295 Y10S264/31 Y10T428/24372

European: B28B1/00F B28B13/02H

US: 264/101 264/113 264/139 264/241 264/510 264/DIG.31 428/143

JP F-Term: 2D051 2D051/AE04 2D051/AF06 2D051/AF07 2D051/AF10 2D051/AG01 2D051/AG11 2D051/AH02 2D051/DB02 2D051/DC04 2D051/DC06 3B123 3B124 3B221 4B014 4B014/GE02 4B014/GE10 4B014/GP14 4B014/GQ02 4B014/GQ03 4F001 4F100 4F100/AB01/C 4F100/AD00/C 4F100/AE01/A 4F100/AE01/B 4F100/AG00/C 4F100/AK01/A 4F100/AK01/B 4F100/AK01/C 4F100/AP00/C 4F100/BA10/A 4F100/BA10/C 4F100/CA13 4F100/DE01/A 4F100/DE01/B 4F100/DE01/C 4F100/DE05/C 4F100/DG01 4F100/DG10 4F100/DG12 4F100/DG13 4F100/DG15 4F100/EH31/2 4F100/EJ21/2 4F100/GB07 4F100/HB00/A 4G052 4G052/AB27 4G052/DB01 4G052/DC03

JP F-Index: A23G3/02 B28B1/16 B28B1/30 B32B13/00 B32B27/00/E B44C3/04 E01C5/06

PatBase - US5540871_A

U.S. Patent

Jul. 30, 1996

Sheet 1 of 30

5,540,871

FIG. 1

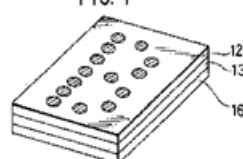


FIG. 2(a)

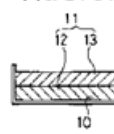


FIG. 2(c)

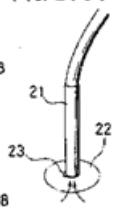


FIG. 2(d)

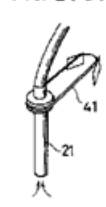
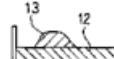


FIG. 2(b)



Family:

Publication number	Publication date	Application number	Application date
AT168923 E	19980815	AT19940309562T	19941220
AU199481665 A1	19950629	AU19940081665	19941221
AU695676 B2	19980820	AU19940081665	19941221
AU8166594 A1	19950629	AU19940081665D	19941221
CA2138566 AA	19950622	CA19942138566	19941220
CN1041608 C	19990113	CN19941019563	19941221
CN1127184 A	19960724	CN19941019563	19941221
DE69412051 D1	19980903	DE19946012051	19941220
DE69412051 T2	19981203	DE19946012051T	19941220
EP0659526 A1	19950628	EP19940309562	19941220
EP0659526 B1	19980729	EP19940309562	19941220
ES2119974 T3	19981016	ES19940309562T	19941220
JP7179100 A2	19950718	JP19930344766	19931221
KR100216660 B1	19990901	KR19940035561	19941221
KR19950017128 A	19950720	KR19940035561	19941221
KR950017128 A	19950720	KR19940035561	19941221
PH31143 A	19980320	PH19940049637	19941221
TH23954 A	19970305	TH19941002825	19941220
TW374060 B	19991111	TW19940112315	19941229
US5540871 A	19960730	US19940360440	19941221

Priority:

JP19930344766 19931221 CA19942138566 19941220

Probable Assignee: CCA INC

Assignee(s): (std): C C A KK ; CCA INC

Assignee(s): CCA INC TOKYO TOKYO JP ; CCA INCJP ; ONUKI MITUHIRO ; UCHIDA HIROSHI ; WATANABE HIDEO

Inventor(s): (std): UCHIDA HIROYUKI ; ONUKI KOYO ; HIROSHI UCHIDA ; HIDEO WATANABE ; MITUHIRO ONUKI ; ONUKI MITSUHIRO ; WATANABE HIDEO ; WATANABE HIDEO ; ONUKI MITUHIRO ; UCHIDA HIROSHI

Inventor(s): HIROYUKI UCHIDA ; KOYO ONUKI ; HIDEO WATANABE ; WATANABE HIDEO ASHIKAGA SHI TOCHIGI KEN JP ; ONUKI MITUHIRO KIRYU SHI GUNMA KEN JP ; UCHIDA HIROSHI ASHIKAGA SHI TOCHIGI KEN JP

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; G RONALD BELL AND

ASSOCIATES

Designated states: AT BE CH DE ES FR GB GR IT LI NL PT SE

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AT168923 E	19980815	LSGT	+	granted / extensions (spc, cpc, pte)	
AT168923 E	19990115	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT168923 E	20141220	PEXP		Calculated Patent Term Expiry	
AU199481665 A1	19950629	LSPB	+	published / reissued	
AU695676 B2	19980820	LSGT	+	granted / extensions (spc, cpc, pte)	
AU695676 B2	20000720	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU695676 B2	20141221	PEXP		Calculated Patent Term Expiry	
AU8166594 A1	19950629	LSPB	+	published / reissued	
CA2138566 AA	19950622	LSPB	+	published / reissued	
CA2138566 AA	19980805	LSES	+EEER	EXAMINATION REQUEST	
CA2138566 AA	20001220	LSLE	-FZDE	DEAD	
CN1041608 C	19990113	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1041608 C	19990113	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1041608 C	20010214	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE	
CN1041608 C	20141221	PEXP		Calculated Patent Term Expiry	
CN1127184 A	19960724	LSPB	+	published / reissued	
CN1127184 A	19960724	LSPB	+C06	PUBLICATION	
DE69412051 D1	19990826	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69412051 D1	20010208	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69412051 T2	19981203	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69412051 T2	20141220	PEXP		Calculated Patent Term Expiry	
EP0659526 A1	19950628	LSPB	+	published / reissued	
EP0659526 A1	19960131	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19951130
EP0659526 A1	19971217	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19971104
EP0659526 B1	19980729	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0659526 B1	19980729	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 : 19980729
EP0659526 B1	19980729	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

EP0659526 B1	19980729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	TIME-LIMIT LAPSED DATE : 19980729 COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980729
EP0659526 B1	19980729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980729
EP0659526 B1	19980729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980729
EP0659526 B1	19980729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980729
EP0659526 B1	19980814	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0659526 B1	19981016	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2119974 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0659526 B1	19981029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19981029
EP0659526 B1	19981029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19981029
EP0659526 B1	19981201	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 19981201 YEAR OF FEE PAYMENT : 5
EP0659526 B1	19981207	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19981207 YEAR OF FEE PAYMENT : 5
EP0659526 B1	19981231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19981231 YEAR OF FEE PAYMENT : 5

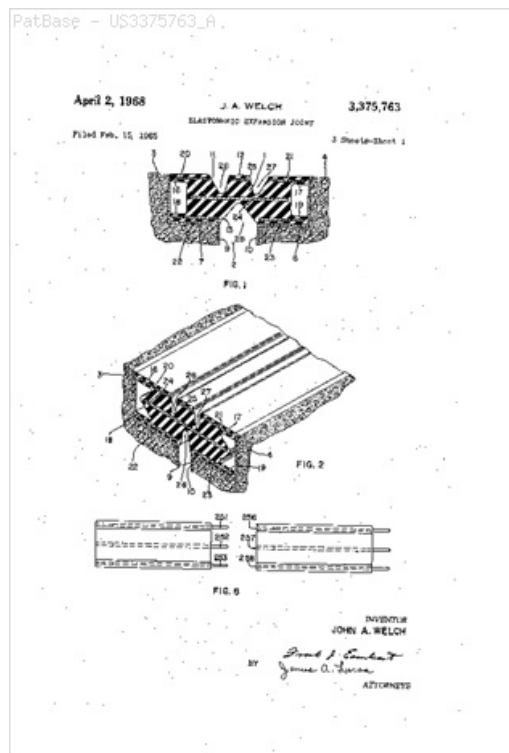
EP0659526 B1	19990104	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP0659526 B1	19990129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0659526 B1	19990226	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19990226 YEAR OF FEE PAYMENT : 5
EP0659526 B1	19990721	LSGT	+26N	NO OPPOSITION FILED	
EP0659526 B1	19991220	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 : 19991220
EP0659526 B1	20000809	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19991220
EP0659526 B1	20000831	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 : 20000831
EP0659526 B1	20001003	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 : 20001003
EP0659526 B1	20001013	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0659526 B1	20001221	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 : 20001221
EP0659526 B1	20040501	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20010113
EP0659526 B1	20051220	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 : 20051220
EP0659526 B1	20141220	PEXP		Calculated Patent Term Expiry	
ES2119974 T3	19981016	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2119974 T3	19981016	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 659526 COUNTRY OF REF DOCUMENT : ES
ES2119974 T3	20141220	PEXP		Calculated Patent Term Expiry	
JP7179100 A2	19950718	LSPB	+	published / reissued	
KR100216660 B1	19990901	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100216660 B1	19970829	LSES	A201	REQUEST FOR EXAMINATION	
KR100216660 B1	19990415	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100216660 B1	19990601	LSGT	+GRNT	WRITTEN DECISION TO	

GRANT				
KR100216660 B1	20020602	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR100216660 B1	20141221	PEXP		Calculated Patent Term Expiry
KR19950017128 A	19950720	LSPB	+	published / reissued
KR950017128 A	19950720	LSPB	+	published / reissued
PH31143 A	19980320	LSGT	+	granted / extensions (spc, cpc, pte)
PH31143 A	20150320	PEXP		Calculated Patent Term Expiry
TH23954 A	19970305	LSPB	+	published / reissued
TW374060 B	19991111	LSGT	+	granted / extensions (spc, cpc, pte)
TW374060 B	20141229	PEXP		Calculated Patent Term Expiry
US5540871 A	19960730	LSGT	+	granted / extensions (spc, cpc, pte)
US5540871 A	19941221	LSAS	AS	ASSIGNMENT PARTYTYPE : OWNER OWNER : CCA INC., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:UCHIDA, HIROSHI; ONUKEI, MITUHIRO; WATANABE, HIDEO; REEL/FRAAME:007295/0975 EFFECTIVE DATE : 19941212
US5540871 A	19960624	LSGT	PAT1	Patented Case
US5540871 A	20000730	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES
US5540871 A	20001003	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE EFFECTIVE DATE : 20000730
US5540871 A	20180125	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362
US5540871 A	20180125	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5540871 A	20141221	PEXP		Calculated Patent Term Expiry

Abstract: ABSTRACT OF THE DISCLOSURE

Classifications:

European: E01C11/12C E01D19/06
US: 14/73.1 404/67



Publication number	Publication date	Application number	Application date
DE1534262 A1	19710415	DE19661534262	19660215
DE1534262 B1	19710415	DE19661534262	19660215
DE1534262 C2	19711125	DE19661534262	19660215
GB1071864 A	19670614	GB19660002295	19660118
NL145005 B	19750217	NL19660001783	19660211
NL6601783 A	19660816	NL19660001783	19660211
US3375763 A	19680402	US19650432471	19650215

US19650432471 19650215

Probable Assignee: GEN TIRE AND RUBBER CO

Assignee(s): (std): GEN TIRE AND RUBBER CO ; THE GENERAL TIRE AND RUBBER COMPANY AKRON OHIO VER

Assignee(s): THE GENERAL TIRE AND RUBBER COMPANY AKRON OHIO VER ST V AM ; THE GENERAL TIRE AND RUBBER COMPANY

Inventor(s): (std): WELCH JOHN ALAN ; WELCH JOHN A

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE1534262 A1	19710415	LSPB	+	published / reissued	
DE1534262 B1	19710415	LSPB	+	published / reissued	
DE1534262 C2	19711125	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1071864 A	19670614	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1071864 A	19860118	PEXP		Calculated Patent Term Expiry	
NL145005 B	19750217	LSPB	+	published / reissued	

NL145005 B	19800215	LSLE	-VJC	LAPSED DUE TO NON-PAYMENT OF THE DUE MAINTENANCE FEE FOR THE PATENT OR PATENT APPLICATION
NL145005 B	19860211	PEXP		Calculated Patent Term Expiry
NL6601783 A	19660816	LSPB	+	published / reissued
US3375763 A	19680402	LSGT	+	granted / extensions (spc, cpc, pte)

Title: TACTILE WARNING PANEL APPARATUS AND SYSTEM WITH SMART TECHNOLOGY

Abstract: The present invention relates to tactile warning panels, and in particular to tactile warning panels that are designed and built with multifunction/multipurpose capabilities that serve the visually impaired and enable the deployment of smart city technology by integrating tactile warning systems and subsurface enclosures that can withstand pressures of five (5) tons up to and exceeding sixty (60) tons and incorporate small cells, beacons, sensors, Fog Computing, electric energy generation, rechargeable power supplies, wireless M2M communication and a plethora of other smart city technologies.

Classifications:

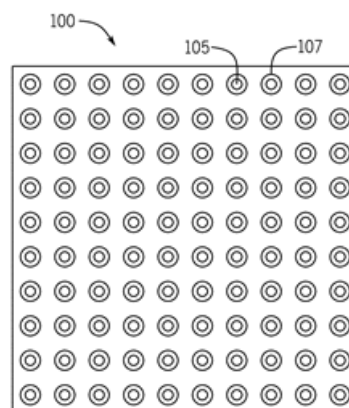
International (IPC 8-9): A61H3/06 E01C5/00 E01C5/06 E01C5/16 E01C5/20 E01C5/22 G08B6/00 G09B21/00 H02G9/06

H02G9/10 (Advanced/Invention)

CPC: A61H3/061 A61H2003/063 A61H2201/0207 A61H2201/0214 A61H2201/501 A61H2201/5058 A61H2201/5061 A61H2201/5082 A61H2201/5092 A61H2201/5097 E01C5/001 G08B6/00 G09B21/004 H02G9/06 H02G9/10 E01C5/06 E01C5/16 E01C5/20 E01C5/22

US: 1/1 340/407.1

PatBase - US2017252256_AA



Family:

Publication number	Publication date	Application number	Application date
AU2017228359 AA	20181011	AU20170228359	20170228
EP3423022 A1	20190109	EP20170760630	20170228
EP3423022 A4	20191023	EP20170760630	20170228
US2017252256 AA	20170907	US20170445438	20170228
US2018014994 AA	20180118	US20170717514	20170927
US2018028393 AA	20180201	US20170717511	20170927
US2018028394 AA	20180201	US20170717519	20170927
US2019046391 AA	20190214	US20180160545	20181015
US9789025 BB	20171017	US20170445438	20170228
US9949886 BB	20180424	US20170717514	20170927
US10098805 BB	20181016	US20170717511	20170927
US10098806 BB	20181016	US20170717519	20170927
WO17151643 A1	20170908	WO2017US19988	20170228

Priority:

US20160301864P 20160301 US20170445438 20170228 WO2017US19988 20170228
 US20170717514 20170927 US20170717511 20170927 US20170717519 20170927
 US20180160545 20181015

Probable Assignee: BRANDBUMPS LLC

Assignee(s): (std): BRANDBUMPS LLC ; BRANDSBUMPS LLC

Inventor(s): (std): HENSHUE CHRISTOPHER GARY ; HENSHUE GARY LAVERNE ; RICE JAMES CYRUS

Agent(s): SPRUSON AND FERGUSON; ALGEMEEN OCTROOI EN MERKENBUREAU BV; CASIMIR JONES SC; CASMIR JONES SC; JONES J MITCHELL

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
AU2017228359 AA	20181011	LSPB	+	published / reissued	
EP3423022 A1	20190109	LSPB	+	published / reissued	
EP3423022 A1	20190109	LSSES	+17P	REQUEST FOR	EFFECTIVE DATE : 20181001

EP3423022 A4	20191023	LSSES	+A4	EXAMINATION FILED SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20190923
US10098805 BB	20181016	LSGT	+	granted / extensions (spc, cpc, pte)	
US10098805 BB	20170927	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10098805 BB	20171026	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10098805 BB	20180124	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BRANDBUMPS, LLC, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HENSHUE, CHRISTOPHER GARY; HENSHUE, GARY LAVERNE; RICE, JAMES CYRUS; REEL/FRAME:044709/0743 EFFECTIVE DATE : 20160405
US10098805 BB	20180926	LSGT	PAT1	Patented Case	
US10098805 BB	20370927	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US10098806 BB	20181016	LSGT	+	granted / extensions (spc, cpc, pte)	
US10098806 BB	20170927	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10098806 BB	20171026	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10098806 BB	20180124	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BRANDBUMPS, LLC, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HENSHUE, CHRISTOPHER GARY; HENSHUE, GARY LAVERNE; RICE, JAMES CYRUS; REEL/FRAME:044709/0743 EFFECTIVE DATE : 20160405
US10098806 BB	20180926	LSGT	PAT1	Patented Case	
US10098806 BB	20370927	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US2017252256 AA	20170907	LSPB	+	published / reissued	
US2017252256 AA	20170821	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017252256 AA	20170914	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2017252256 AA	20170915	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	

US2017252256 AA	20170927	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018014994 AA	20180118	LSPB	+	published / reissued	
US2018014994 AA	20180316	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018014994 AA	20180404	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018028393 AA	20180201	LSPB	+	published / reissued	
US2018028393 AA	20180213	LSES	NFA1	Non Final Action Mailed	
US2018028393 AA	20180622	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2018028393 AA	20180625	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018028393 AA	20180926	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018028394 AA	20180201	LSPB	+	published / reissued	
US2018028394 AA	20180213	LSES	NFA1	Non Final Action Mailed	
US2018028394 AA	20180620	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2018028394 AA	20180621	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018028394 AA	20180926	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019046391 AA	20190214	LSPB	+	published / reissued	
US2019046391 AA	20190513	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BRANDBUMPS, LLC, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HENSHUE, CHRISTOPHER GARY; HENSHUE, GARY LAVERNE; RICE, JAMES CYRUS; REEL/FRAME:049153/0450 EFFECTIVE DATE : 20160405
US2019046391 AA	20190820	LSES	NFA1	Non Final Action Mailed	
US2019046391 AA	20200409	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9789025 BB	20171017	LSGT	+	granted / extensions (spc, cpc, pte)	
US9789025 BB	20170301	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BRANDBUMPS, LLC, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HENSHUE, CHRISTOPHER GARY; HENSHUE, GARY LAVERNE; RICE, JAMES CYRUS; REEL/FRAME:041423/0283 EFFECTIVE DATE : 20160405
US9789025 BB	20170927	LSGT	PAT1	Patented Case	

US9789025 BB	20181126	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : PETITION RELATED TO MAINTENANCE FEES GRANTED (ORIGINAL EVENT CODE: PTGR); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US9789025 BB	20370228	PEXP		Calculated Patent Term Expiry	
US9949886 BB	20180424	LSGT	+	granted / extensions (spc, cpc, pte)	
US9949886 BB	20170927	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US9949886 BB	20171010	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US9949886 BB	20180117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BRANDBUMPS, LLC, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HENSHUE, CHRISTOPHER GARY; HENSHUE, GARY LAVERNE; RICE, JAMES CYRUS; REEL/FRAME:044637/0801 EFFECTIVE DATE : 20160405
US9949886 BB	20180404	LSGT	PAT1	Patented Case	
US9949886 BB	20370927	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO17151643 A1	20170908	LSPB	+	published / reissued	
WO17151643 A1	20180904	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO17151643 A1	20181001	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017760630 COUNTRY OF REF DOCUMENT : EP
WO17151643 A1	20181005	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2017760630 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20181001
WO17151643 A1	20181011	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2017228359 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20170228 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

Title: DEVICE AND METHOD FOR LAYING A PIPE

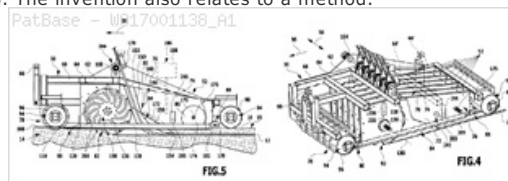
Abstract: The invention relates to a device for laying a pipe (12) in ground (14) having a lawn (16), in particular a sports facility, wherein the device (10) can be moved over the ground surface (15) in a processing direction (36), comprising a lifting device (82) for forming a slot-shaped recess (140) in the ground (14) and an insertion device (84) following after the lifting device (82) in the processing direction (36) for inserting the pipe (12) into the recess (140). In order to provide this type of device (10) for laying a pipe (12) with which the pipe (12) can be laid in a simple way, the device (10) comprises, according to the invention, a separating device (78), which precedes the lifting device (82) in the processing direction (36) and with which the turf (22) can be separated, and a spreading device (80) for spreading the separated turf sections (114, 116) from one another and for guiding the turf sections (114, 116) laterally past the lifting device (82) and the insertion device (84) while the device (10) is moving, wherein it can engage in the ground (14) between the spread turf sections (114, 116) at least with the lifting device (82), and the pipe (12) can be inserted into the recess (140) between the turf sections (114, 116). The invention also relates to a method.

Classifications:

International (IPC 8-9): A01C23/00 A01C5/06 E01C13/08 E02F3/96 E02F5/08 E02F5/10 E02F5/12 F16L1/028 F16L1/032

H02G1/06 (Advanced/Invention)

CPC: E02F3/961 E02F5/08 E02F5/101 E02F5/12 F16L1/032 H02G1/06 E01C13/083

**Family:**

Publication number	Publication date	Application number	Application date
DE102015110547 A1	20170105	DE201510110547	20150630
WO17001138 A1	20170105	WO2016EP62470	20160602

Priority:

DE201510110547 20150630

Probable Assignee: NOVOTER AG

Assignee(s): (std): NOVOTER AG

Inventor(s): (std): BUEHRER BENJAMIN ; HARDMAN ERIC

Agent(s): HOEGER STELLRECHT AND PARTNER PATENTANWALTE MBB

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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102015110547 A1	20170105	LSPB	+	published / reissued	
DE102015110547 A1	20150630	LSSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102015110547 A1	20181017	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
WO17001138 A1	20170105	LSPB	+	published / reissued	
WO17001138 A1	20180103	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO17001138 A1	20180725	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16727463 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: RESILIENT CARPET

Abstract: A resilient carpet comprising a plurality of pockets filled with granular material; said pockets are formed by a lower first fabric layer and an upper second fabric layer which are joined together to form a plurality of tubular elements(14); characterised in said granular material comprises ground vulcanized rubber; and by comprising at least one heating tape (22) associated with said resilient carpet.

Classifications:

International (IPC 8-9): A47G27/04 B32B5/26 B32B7/04 D03D11/02 D06N7/00 E01C13/08 E04B1/88 (Advanced/Invention)
CPC: B32B5/26 B32B5/022 B32B5/024 B32B5/06 B32B7/04 B32B15/14 B32B27/12 B32B2307/102 B32B2307/304 B32B2307/558 B32B2307/56 B32B2471/02 D06H5/00 D06N7/0089 D06N2205/106 D06N2209/025 D06N2209/065 D06N2209/103 E01C13/02 E01C13/083 Y02P70/651 Y02P70/649 B32B7/05

European: B32B15/14 B32B27/12 B32B5/02A B32B5/02B B32B5/06 B32B5/26 B32B7/04 B32B7/04A D06H5/00 D06N7/00C4 E01C13/02 E01C13/08B E04F15/20B L32B307/102 L32B307/304 L32B307/558 L32B307/560 L32B471/02 N06N205/10D N06N209/02B N06N209/06D N06N209/10D P04F290/02B P04F290/04B4

PatBase - WO12001498_A1

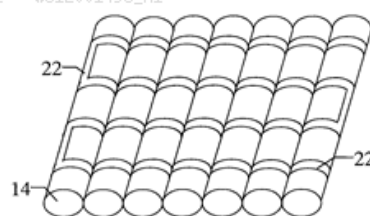


Fig. 5

Family:

Publication number	Publication date	Application number	Application date
CA2802137 AA	20121210	CA20112802137	20110630
DE602011005648 D1	20140430	DE201160005648T	20110630
EP2588305 A2	20130508	EP20110754479	20110630
EP2588305 B1	20140319	EP20110754479	20110630
IT1400645 B1	20130628	IT2010BG00036	20100701
ITBG20100036 A1	20120102	IT2010BG00036	20100701
RU2013104182 A	20140810	RU20130104182	20110630
WO12001498 A1	20120105	WO2011IB01526	20110629
WO12001504 A2	20120105	WO2011IB01543	20110630
WO12001504 A3	20120301	WO2011IB01543	20110630

Priority:

IT2010BG00036 20100701 EP20110754479 20110630 WO2011IB01543 20110630

Probable Assignee: PROMIX S R L

Assignee(s): (std): PROMIX S R L ; VERO ENRICO

Assignee(s): PROMIX SRL ; PROMIX SRL BONATE SOTTO

Inventor(s): (std): VERO ENRICO

Agent(s): ROBIC ; GATTI ENRICO

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 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
CA2802137 AA	20121210	LSPB	+	published / reissued	
CA2802137 AA	20170813	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20170630
DE602011005648 D1	20150101	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
EP2588305 A2	20130508	LSPB	+	published / reissued	
EP2588305 A2	20130508	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20121217
EP2588305 A2	20131113	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20131016
EP2588305 B1	20140319	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2588305 B1	20140319	LSGT	REG	REFERENCE TO A	REF COUNTRY CODE : GB

				NATIONAL CODE	REF LEGAL EVENT CODE : FG4D
EP2588305 B1	20140331	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2588305 B1	20140415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 657373 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140415
EP2588305 B1	20140423	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2588305 B1	20140430	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011005648 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140430
EP2588305 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20140619
EP2588305 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20140319
EP2588305 B1	20140813	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140319
EP2588305 B1	20140815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 657373 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140319
EP2588305 B1	20140825	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2588305 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20140319
EP2588305 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20140319
EP2588305 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20140319
EP2588305 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-

				TO EPO]	LIMIT LAPSED DATE : 20140319
EP2588305 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140619
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140719
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20140319
EP2588305 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20141222	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011005648 COUNTRY OF REF DOCUMENT : DE
EP2588305 B1	20141231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140721
EP2588305 B1	20150101	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602011005648 COUNTRY OF REF DOCUMENT : DE
EP2588305 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140630
EP2588305 B1	20150130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2588305 B1	20150225	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20141222
EP2588305 B1	20150325	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2588305 B1	20150326	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER :

					602011005648 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150101
EP2588305 B1	20150327	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20150227
EP2588305 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 : 20140319
EP2588305 B1	20150402	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011005648 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141222
EP2588305 B1	20150430	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 : 20150101
EP2588305 B1	20150430	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 : 20140630
EP2588305 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 : 20140630
EP2588305 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 : 20140630
EP2588305 B1	20150529	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 : 20140630
EP2588305 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 : 20140319
EP2588305 B1	20160224	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20150630
EP2588305 B1	20160331	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 : 20140319
EP2588305 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 : 20140319

EP2588305 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150630
EP2588305 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : 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 : 20110630
EP2588305 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140319
EP2588305 B1	20310630	PEXP		Calculated Patent Term Expiry	
IT1400645 B1	20130628	LSGT	+	granted / extensions (spc, cpc, pte)	
IT1400645 B1	20300701	PEXP		Calculated Patent Term Expiry	
ITBG20100036 A1	20120102	LSPB	+	published / reissued	
RU2013104182 A	20140810	LSPB	+	published / reissued	
RU2013104182 A	20140927	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	EFFECTIVE DATE : 20140909
WO12001498 A1	20120105	LSPB	+	published / reissued	
WO12001498 A1	20130102	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12001498 A1	20130731	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 11746312 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO12001504 A2	20120105	LSPB	+	published / reissued	

WO12001504 A3	20121210	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2802137 COUNTRY OF REF DOCUMENT : CA
WO12001504 A3	20121217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011754479 COUNTRY OF REF DOCUMENT : EP
WO12001504 A3	20130102	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12001504 A3	20130201	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2013104182 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

Abstract: An **expansion joint** 31 in which opposing upper wavy end face plates 38A with a regular gap 44 therebetween and lower wavy end face plates 38B with the upper end thereof bonded to the lower end of the upper wavy end face plates are provided oppositely, and an elastic means 45 is interposed between the two upper wavy end face plates. The upper edge of said upper wavy end face plates is made flush with or close to the road surface. Anchor materials 48 are provided protrudingly at the back of the two upper wavy end face plates and are connected to reinforcing material. Concrete or synthetic resin is placed at the back of each of said wavy end face plates and a small gap is provided between the lower end of said lower wavy end face plate and the bottom surface of a **joint** fitting portion to prevent them from touching each other.

European: E01D19/06



Publication number	Publication date	Application number	Application date
GB2062717 A1	19810528	GB19790037707	19791031
GB2062717 B2	19830518	GB19790037707	19791031
HK68883 A	19831223	HK19830000688	19831215

Inventor(s):

MOTONOSUKE ARAI

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
GB2062717 A1	19810528	LSPB	+	published / reissued	
GB2062717 B2	19830518	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2062717 B2	19991124	LSLE	-PE20	PATENT EXPIRED AFTER TERMINATION OF 20 YEARS	EFFECTIVE DATE : 19991030
GB2062717 B2	19991031	PEXP		Calculated Patent Term Expiry	
HK68883 A	19831223	LSGT	+	granted / extensions (spc, cpc, pte)	
HK68883 A	20041215	LSLE	-PE	PATENT EXPIRED	
HK68883 A	20031215	PEXP		Calculated Patent Term Expiry	

Title: LOW FRICTION SAFETY SYSTEM FOR A PERSONAL VEHICLE GUIDEWAY

Abstract: In a vehicle guideway having a vehicle track, a guidance system is provided comprising one or more guide curbs installed along a length of the guideway, and a low-friction coating or coatings presented by the curbs, a vehicle's tires, or both, the coating or coatings reducing friction and wear in the event of contact between the tires and the one or more guide curbs.

Classifications:

International (IPC 8-9): B60C13/00 B60C5/00 B60C7/00 B61C17/12 B61F13/00 E01B25/00 E01C1/00 E01C11/22 E01C9/02 G01M17/007 G05D1/00 G06Q10/00 G06Q10/06 G06Q30/00 G08G1/01

G08G1/16 (Advanced/Invention);

B60C5/00 B60C7/00 E01C11/00 G01M17/007 G05D1/00

G06Q10/00 (Core/Invention)

CPC: B60C7/00 B60C13/001 G06Q10/0637 G06Q30/016 G08G1/01

E01C9/02 Y10T152/10 Y10T152/10495

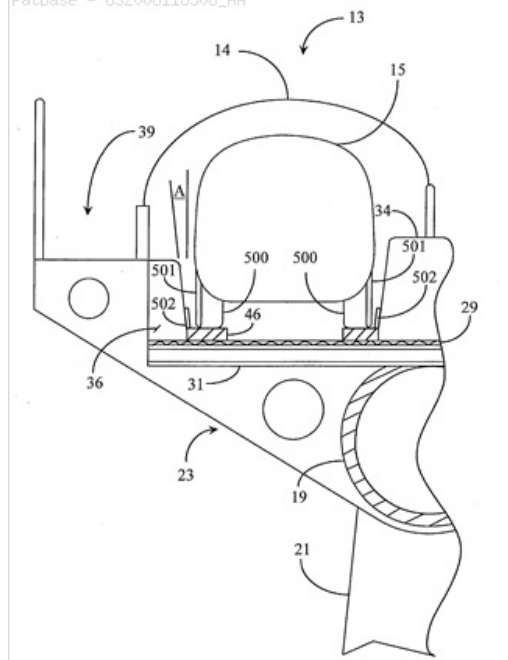
European: B60C13/00B B60C7/00 E01C9/02 G06Q10/0637 G06Q30/016

US: 152/151 152/151S 152/450 152/450S 404/1 404/6 404/7 404/7P

404/8 404/9 701/117 701/2 701/20 701/2P 701/31.4 701/31.400S 701/33

701/96 705/304 705/304S 705/7 705/7.36 705/7.360S 705/8

PatBase - US2008118306_AA

**Family:**

Publication number	Publication date	Application number	Application date
US2008118306 AA	20080522	US20070747436	20070511
US2008119965 AA	20080522	US20060560981	20061117
US2012148343 AA	20120614	US20120398485	20120216
US2013066491 AA	20130314	US20120672161	20121108
US2015262479 AA	20150917	US20150714642	20150518
US8231302 BB	20120731	US20120398485	20120216
US8430595 BB	20130430	US20070747436	20070511
US8757921 BB	20140624	US20120672161	20121108
US9037388 BB	20150519	US20060560981	20061117
US9595190 BB	20170314	US20150714642	20150518
WO08063920 A2	20080529	WO2007US84243	20071109
WO08063920 A3	20100429	WO2007US84243	20071109

Priority:

US20060560981 20061117 US20070747436 20070511 US20120398485 20120216
 US20120672161 20121108 US20150714642 20150518

Probable Assignee: MCCRARY PERSONAL TRANSPORT SYSTEM LLC

Assignee(s): (std): MCCRARY HOMER T ; MCCRARY PERSONAL TRANSP SYSTEM LLC

Assignee(s): MCCRARY PERSONAL TRANSPORT SYSTEM LLC

Inventor(s): (std): MCCRARY HOMER T

Agent(s): CENTRAL COAST PATENT AGENCY INC; DONALD R; BOYS DONALD R

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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US2008118306 AA	20080522	LSPB	+	published / reissued	
US2008118306 AA	20130329	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MCCRARY PERSONAL TRANSPORT SYSTEM, LLC, CALIFORNIA

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MCCRARY, HOMER T.; REEL/FRAME:030117/0286 EFFECTIVE DATE : 20130326
US2008118306 AA	20130410	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008119965 AA	20080522	LSPB	+	published / reissued	
US2008119965 AA	20130329	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MCCRARY PERSONAL TRANSPORT SYSTEM, LLC, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MCCRARY, HOMER T.; REEL/FRAME:030117/0472 EFFECTIVE DATE : 20130326
US2008119965 AA	20150429	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012148343 AA	20120614	LSPB	+	published / reissued	
US2012148343 AA	20120711	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013066491 AA	20130314	LSPB	+	published / reissued	
US2013066491 AA	20140604	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015262479 AA	20150917	LSPB	+	published / reissued	
US2015262479 AA	20170222	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8231302 BB	20120731	LSGT	+	granted / extensions (spc, cpc, pte)	
US8231302 BB	20120711	LSGT	PAT1	Patented Case	
US8231302 BB	20151102	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8231302 BB	20190919	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8231302 BB	20320216	PEXP		Calculated Patent Term Expiry	
US8430595 BB	20130430	LSGT	+	granted / extensions (spc, cpc, pte)	
US8430595 BB	20130410	LSGT	PAT1	Patented Case	
US8430595 BB	20160815	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8430595 BB	20271014	PEXP		Calculated Patent Term Expiry (PTA 156 days)	
US8757921 BB	20140624	LSGT	+	granted / extensions (spc, cpc, pte)	
US8757921 BB	20140604	LSGT	PAT1	Patented Case	
US8757921 BB	20171220	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8757921 BB	20321108	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9037388 BB	20150519	LSGT	+	granted / extensions (spc, cpc, pte)	
US9037388 BB	20150429	LSGT	PAT1	Patented Case	
US9037388 BB	20181119	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9037388 BB	20311229	PEXP		Calculated Patent Term Expiry (PTA 1868 days)	
US9595190 BB	20170314	LSGT	+	granted / extensions (spc, cpc, pte)	
US9595190 BB	20170222	LSGT	PAT1	Patented Case	

US9595190 BB	20350518	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO08063920 A2	20080529	LSPB	+	published / reissued	
WO08063920 A2	20090519	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO08063920 A2	20091216	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 07845011 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

Title: SYNTHETIC **FLOORING** FOR SPORTS GROUNDS - WITH LIGHTWEIGHT CONCRETE BASE LAYER, POLYSTYRENE BUFFER LAYER, IMPACT-DISTRIBUTING LAYER, PLASTIC LAYER AND SYNTHETIC FIBRE TOP LAYER

Abstract: Synthetic **floor** covering for sports grounds consists of (a) a base layer of lightweight concrete, (b) a flexible buffer layer of polystyrene material, (c) an impact-distributing layer of lightweight cement concrete, (d) a plastic layer and (e) a top layer of synthetic fibres. The covering (e) may be e.g. of a needled nylon textile material or a synthetic velour fabric. The concrete base layer is cast e.g. from a mixt. of 250 l. expanded clay or other lightweight additive with a particle size of 2-10 mm and a density of 1; 250 l. silica sand 0/12 and 100 kg. cement. The impact-distributing layer is about 4 cm. thick and is comprised e.g. of a mixt. of 250 l. expanded clay, 120 l. sand 0/6, 100 kg. cement and 12 l. synthetic resin additive. The **flooring** can be used for pitches for football, handball, volleyball, tennis, running, athletic, etc., and have the required degree of hardness and resistance to spiked sports shoes while reducing the risk of accidents, muscle sprains and breakage of limbs.

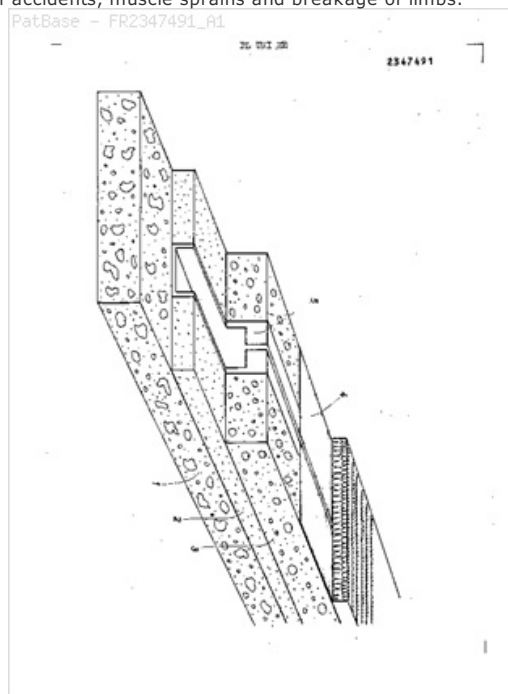
Classifications:

International (IPC 8-9): E01C13/02 E01C13/04 (Advanced/Invention); E01C13/00 (Core/Invention)

International (IPC 1-7): E01C13/00 E01C5/22

CPC: E01C13/02 E01C13/045

European: E01C13/02 E01C13/04B



Family:

Publication number	Publication date	Application number	Application date
DE2714068 A1	19771020	DE19772714068	19770330
FR2347491 A1	19771104	FR19770004594	19770217

Priority:

DZ19760004048 19760409

Probable Assignee: GUERENDEL RAYMOND

Assignee(s): (std): GUERENDEL RAYMOND ; GUERENDEL RAYMOND LOUIS

Inventor(s): (std): GUERENDEL RAYMOND LOUIS

Inventor(s): LOUIS GUERENDEL RAYMOND

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE2714068 A1	19771020	LSPB	+	published / reissued	
DE2714068 A1	19800110	LSLE	-OHJ	NON-PAYMENT OF THE ANNUAL FEE	
FR2347491 A1	19771104	LSPB	+	published / reissued	
FR2347491 A1	19791221	LSLE	-ST	NOTIFICATION OF LAPSE	

Title: METHODS AND APPARATUS FOR REMOVAL AND CONTROL OF MATERIAL IN LASER DRILLING OF A BOREHOLE

Abstract: There is provided a system, apparatus and methods for removal of material for the path of a laser beam during laser drilling of a borehole and for removal of displaced borehole material from the borehole during laser drilling. In particular, there are provided paths, dynamics and parameters of fluid flows, and apparatus for obtaining such, for use in conjunction with a laser bottom hole assembly.

Classifications:

International (IPC 8-9): A61K48/00 B01J19/12 B08B7/00 B08B9/02 B08B9/023 B08B9/027 B08B9/043 B08B9/055 B23K26/00 B23K26/04 B23K26/046 B23K26/06 B23K26/064 B23K26/073 B23K26/08 B23K26/10 B23K26/12 B23K26/122 B23K26/14 B23K26/146 B23K26/16 B23K26/24 B23K26/352 B23K26/36 B23K26/38 B23K26/382 B23K26/40 B23K26/402 B23K26/70 B23K37/02 B23P11/00 B63B17/00 B63B35/28 B63C11/40 B63C11/44 B63C11/48 B63G8/00 B63G8/08 B65H55/00 B65H59/00 E01C23/08 E01C23/12 E02B17/00 E02D17/00 E21B10/00 E21B10/50 E21B10/54 E21B10/60 E21B17/00 E21B17/20 E21B19/00 E21B19/22 E21B21/00 E21B21/08 E21B21/10 E21B21/14 E21B21/16 E21B23/00 E21B23/14 E21B29/00 E21B29/02 E21B29/06 E21B29/08 E21B29/12 E21B33/00 E21B33/038 E21B33/06 E21B33/064 E21B33/12 E21B33/13 E21B34/04 E21B36/04 E21B37/00 E21B37/08 E21B4/02 E21B4/04 E21B41/00 E21B41/04 E21B43/00 E21B43/01 E21B43/11 E21B43/114 E21B43/116 E21B43/119 E21B43/24 E21B43/26 E21B43/267 E21B44/00 E21B47/00 E21B47/113 E21B47/12 E21B49/00 E21B7/00 E21B7/12 E21B7/14 E21B7/15 E21B7/16 E21C25/64 E21C27/24 E21C35/00 E21C37/16 E21C37/18 E21C41/00 E21D9/10 F16L23/00 F21V15/01 F21V15/06 F21V29/00 F21V29/15 F21V8/00 G01J1/04 G01M11/00 G01M5/00 G02B6/08 G02B27/14 G02B6/02 G02B6/14 G02B6/26 G02B6/28 G02B6/32 G02B6/36 G02B6/38 G02B6/42 G02B6/44 H01J27/24 H01J40/14 H01L21/00 H01L31/00 H01L31/02 H01L31/0224 H01L31/0304 H01L31/05 H01L31/054 H01L31/055 H01S3/00 H01S3/04 H01S3/042 H01S3/067 H01S3/094 H01S3/0941 H01S3/109 H01S3/109 H01S3/23 H01S3/30 H01S5/00 H01S5/022 H01S5/024 H01S5/042 H01S5/40 H02G1/08 H04B10/079 H04B10/80 H05K7/20 (Advanced/Invention); B08B7/00 B23K101/04 B23K103/00 B23K103/10 B60P1/54 B63B19/00 B63B21/00 B63B35/00 B66C23/36 E02B17/00 E21B15/00 E21B23/00 E21B37/00 E21B43/00 E21B43/11 E21B43/116 E21B43/16 E21B49/00 E21B7/04 E21B7/15 G02B23/24 G02B6/32 G02B6/36 G02B6/38 G02B6/42 G02B6/44 G02B6/50 G21C17/017 H01S3/00 H01S3/094 H01S3/16 (Advanced/Non-invention); B65H55/00 E21B17/00 E21B7/00 E21B7/14 G02B6/44 (Core/Invention)

International (IPC 1-7): E21B29/08

CPC: E21B4/18 E21B17/203 E21B21/12 E21B21/16 H01L31/03046 Y02E10/544 H04B10/807 H01L2924/01015 H01L2924/01047 H01L2924/00014 B23K26/36 E21B4/02 E21C25/00 E21D9/08 E01C23/12 E21B44/00 E21B33/076 F17D5/00 B08B9/04 B08B9/0436 B08B7/0071 B08B9/023 B08B9/027 H01L31/0201 H01L31/022433 H01L31/0508 H01L31/054 B08B9/02 B08B9/055 G02B6/502 B23K26/142 B63G2008/007 B63G8/001 E21B41/04 E01C23/127 G01M5/0025 G01M5/0033 G01M5/0091 G01M11/35 Y02E10/52 G02B6/4436 G02B6/4492 E02D17/00 B23K26/0732 E21B17/00 G02B6/02395 B23K26/04 E21B43/119 E21B43/26 G02B6/0875 H01L2924/00011 B23K26/402 E21B43/162 E21B49/00 H01S3/06733 H01S3/0941 G02B6/2817 G02B6/3871 G02B6/3897 H01S3/08 G02B6/3604 E02B17/027 B23K26/03 B23K37/02 B23K26/12 B63B17/00 B63B19/00 B63B21/00 B63B35/00 B63B35/28 E21B19/002 B23K2101/06 B23K2103/04 G02B6/0229 B82Y20/00 F16L41/004 F16L55/46 H01S3/02 G02B23/2492 H01S3/005 H01S3/094003 H01S3/1608 E21B36/00 E21B33/038 E21B19/004 E21B29/12 F16L23/003 G02B6/262 H01S3/042 B23K26/0096 B23K26/046 B23K26/0608 B23K26/0869 B23K26/703 H01S5/0071 H01S5/02296 H01S5/02423 H01S5/042 H01S5/4025 B23K26/0604 B23K26/0676 B23K37/0288 B23K37/0294 B23K26/40 B23K2103/52 E01C25/64 E21C27/24 E21C37/18 E21D9/1073 G02B6/4402 G02B6/4413 G02B6/4415 G02B6/443 G02B6/4458 Y10T29/49826 B23K26/06 B23K26/382 H01S3/0675 H01S3/094007 H01S3/094015 H01S3/094042 H01S3/094046 H01S3/094092 H01S3/094096 H01S3/09415 H01S3/1616 H01S3/1693 H01S3/1695 H01S3/2383 H01S3/302 H01S3/109 H01S3/1603 G02B6/4417 G02B6/4427 G02B6/14 G02B6/3813 G02B6/3814 G02B6/3818 G02B2006/4297 H01S3/0064 E21B37/00 G02B6/44 E01C23/088 E01C23/128 E21B33/063 E21B34/045 E21B7/12 E21B33/06 E21B7/16 B23K26/1462 B23K26/00 B23K26/24 E02B2017/0052 E02B2017/0095 B23K2101/04 B60P1/5423 B66C23/36 E21B41/00 H01S3/0071 H01S3/04 B23K26/0622 B23K26/0626 B23K26/073 B23K26/0736 B23K26/14 B23K26/1476 B23K26/384 B23K26/386 B23K2103/30 B23K2103/50 E21B21/103 E21B21/00 E21B21/08 E21B43/11 G02B6/32 G02B6/3624 G02B6/4296 B08B7/0042 B08B9/043 B23K26/064 B23K26/0652 B23K26/106 B23K26/1224 B23K26/127 B23K26/146 B23K2103/10 E21B10/60 E21B29/02 E21B36/04 E21B37/08 E21B43/00 E21B43/01 G21C17/017 E21B29/00 E21B33/1204 E21B33/13 E21B23/001 E21C25/66 E21C37/16 B23K26/0093 B23K26/0648 B23K26/10 B23K26/1464 B23K26/38 E21B4/04 E21B7/14 E21B7/15 E21B2023/008

European: B08B7/00S2 B23K26/00M B23K26/06C B23K26/06C3 B23K26/06C5 B23K26/10 B23K26/10R1 B23K26/12B B23K26/12F B23K26/14D B23K26/14N1 B23K26/38 B23K26/40B7 B63G8/00B E21B10/60 E21B17/20B E21B19/00A2 E21B21/08 E21B21/12 E21B21/16 E21B29/12 E21B33/038 E21B33/06 E21B4/18 E21B7/12 E21B7/14 E21B7/15 G02B6/44C1 G02B6/44C6 G02B6/44C7A H04B10/807 L23K203/10 S02B6/42H S02B6/44C10 S02B6/44C5B S02B6/44C6 S02B6/44C7A S02B6/44C7F

US: 1/1 114/26 114/312 114/313 114/337 134/1.1 166/242.2 166/250.1 166/280.1 166/288 166/297 166/298 166/304 166/336 166/338 166/341 166/3415 166/358 166/3585 166/361 166/3615 166/363 166/3635 166/364 166/376 166/379 166/379S 166/381 166/381S 166/384 166/385 166/55 166/55.1 166/55.2 166/55.6 166/65.1 166/65.100S 166/66 166/75.11 166/75.110S 166/77.1 166/77.2 175/107 175/11 175/15 175/15P 175/16 175/162 175/16P 175/16S 175/40 175/424 175/5 175/57 175/5S 175/6 175/65 175/65S 175/65 175/92 175/92S 219/121.61 219/121.67 219/121.670S 219/121.7 219/121.72 219/121.720P 219/121.84 219/60R 219/61 242/159 242/159S 250/215 250/227.11 250/492.1 250/492.100P 254/134.3FT 254/134.3R 254/134.4 29/428 29/428S 299/14 299/29 359/226.2 362/259 362/317 362/553 362/553S 372/14 372/4 372/9 385/100 385/102 385/104 385/109 385/109P 385/111 385/12 385/13 385/134 385/26 385/88 385/89 385/92 385/93 385/94

JP F-Term: 2D129 2D129/AA04 2D129/AA08 2D129/AA09 2D129/AA10 2D129/AB01 2D129/AB02 2D129/AB25 2D129/BA03 2D129/BB20 2D129/DA17 2D129/DA18 2D129/DC05 2D129/DC23 2D129/DC24 2D129/EB34 2D129/FA01 2D129/GA19 2D129/GB02 2D129/GB09 2D129/HB02 2D129/HB05 2D129/HB08 2D129/HB12 4E068 4E068/AF00 4E068/CA02 4E068/CE03 4E068/CE08 4E068/CG01 4E068/DA01 4E068/DB11 4E168 4E168/AD11 4E168/CA06 4E168/CB04 4E168/DA02 4E168/DA23 4E168/DA24 4E168/DA26 4E168/DA28 4E168/DA32 4E168/DA35 4E168/DA37 4E168/DA40 4E168/DA42 4E168/DA43 4E168/EA05 4E168/EA11 4E168/EA13 4E168/EA17 4E168/FC05 2H150 2H150/AB05 2H150/AB10 2H150/AD25 2H150/AD26 2H150/AD27 2H150/AE11 2H150/AE12 2H150/AE13 2H150/AE14 2H150/AE15 2H150/AE16 2H150/AE17 2H150/AH18 2H150/AH42 2H150/AH50 2H150/BB07 2H150/BB26 2H150/BC04 2H150/BD03 2H150/BD16 2H150/BD18 2H250 2D129/AA00 2D129/AB26 2D129/BA28 2D129/CB18 2D129/EB04

JP F-Index: B23K26/00/N B23K26/064/K B23K26/08/B B23K26/08/K B23K26/082 B23K26/14/Z B23K26/38/330 B23K26/382 B23K26/40 E21B10/50 E21B15/00 E21B21/00/Z E21B21/16 E21B23/14 E21B23/16 E21B23/14 E21B4/02/Z E21B43/00/A E21B43/00/B E21B43/00/C E21B43/116 E21B49/00 E21B7/00/Z E21B7/04/A E21B7/15 G02B6/02/B G02B6/44/331 G02B6/44/336

Family:

Publication number	Publication date	Application number	Application date
AU2009340454 AA	20100826	AU20090340454	20090819
AU2012222154 AA	20120830	AU20120222154	20120224
AU2012259435 AA	20121129	AU20120259435	20120224
AU2012259435 AA	20130912	AU20120259435	20120224

AU2012259435 AA	20121129	AU20120259435	20120224
AU2012259435 BB	20160922	AU20120259435	20120224
AU2012259443 AA	20130912	AU20120259443	20120224
AU2012259443 AA	20121129	AU20120259443	20120224
AU2014228980 AA	20151008	AU20140228980	20140314
AU2014228980 BB	20180222	AU20140228980	20140314
BR112013001512 A2	20160607	BR20131101512	20110719
BR112013021478 A2	20161011	BR20131121478	20120223
BR112013021480 A2	20161011	BR20131121480	20120224
BR112015004458 A2	20170704	BR20151104458	20130830
BR112015004458 A8	20190827	BR20151104458	20130830
BRPI0918403 A2	20151124	BR2009PI18403	20090819
CA2734492 AA	20100826	CA20092734492	20090819
CA2734492 C	20160517	CA20092734492	20090819
CA2805437 AA	20130114	CA20112805437	20110719
CA2805437 C	20160906	CA20112805437	20110719
CA2808214 AA	20130212	CA20112808214	20110816
CA2808214 C	20160223	CA20112808214	20110816
CA2823922 AA	20100826	CA20092823922	20090819
CA2827958 AA	20130821	CA20122827958	20120224
CA2827963 AA	20130821	CA20122827963	20120224
CA2827979 AA	20130821	CA20122827979	20120224
CA2891500 AA	20150513	CA20132891500	20131115
CA2906738 AA	20150914	CA20142906738	20140314
CN102187046 A	20110914	CN200980141304	20090819
CN102187046 B	20150429	CN200980141304	20090819
CN103492668 A	20140101	CN201280019899	20120224
CN103492668 B	20170215	CN201280019899	20120224
CN103492669 A	20140101	CN201280020047	20120224
CN103502564 A	20140108	CN201280019473	20120224
DE602013044874 D1	20181108	DE201360044874T	20130219
DK2678519 T3	20190805	DK20120749039T	20120224
EP2315904 A1	201110504	EP20090840554	20090819
EP2315904 A4	20160420	EP20090840554	20090819
EP2315904 B1	20190206	EP20090840554	20090819
EP2399155 A1	20111228	EP20100786516	20100217
EP2399155 A4	20140709	EP20100786516	20100217
EP2596395 A2	20130529	EP20110810287	20110719
EP2596395 A4	20171227	EP20110810287	20110719
EP2606201 A1	20130626	EP20110818657	20110816
EP2606201 A4	20180307	EP20110818657	20110816
EP2611566 A1	20130710	EP20110822594	20110831
EP2611566 A4	20171108	EP20110822594	20110831
EP2664010 A2	20131120	EP20120734537	20120110
EP2664010 A4	20180627	EP20120734537	20120110
EP2678512 A1	20140101	EP20120749304	20120223
EP2678512 A4	20170614	EP20120749304	20120223
EP2678519 A1	20140101	EP20120749039	20120224
EP2678519 A4	20170823	EP20120749039	20120224
EP2678519 B1	20190626	EP20120749039	20120224
EP2678520 A1	20140101	EP20120789633	20120224
EP2678520 A4	20180328	EP20120789633	20120224
EP2678521 A1	20140101	EP20120789937	20120224
EP2678521 A4	20180307	EP20120789937	20120224
EP2715887 A1	20140409	EP20120793799	20120601
EP2715887 A4	20161123	EP20120793799	20120601
EP2739429 A2	20140611	EP20120820743	20120802
EP2739429 A4	20161102	EP20120820743	20120802
EP2739429 B1	20200212	EP20120820743	20120802
EP2820466 A1	20150107	EP20130754543	20130219
EP2820466 A4	20160330	EP20130754543	20130219
EP2820466 B1	20181010	EP20130754543	20130219
EP2890859 A2	20150708	EP20130833557	20130830
EP2890859 A4	20161102	EP20130833557	20130830
EP2929602 A2	20151014	EP20130860660	20131207
EP2929602 A4	20161221	EP20130860660	20131207
GC3576 A	20150604	GC2009P014608	20091031
GC5934 A	20170716	GC2013P023714	20130302
JP2012500350 T2	20120105	JP20110523959T	20090819
JP2012518210 T2	20120809	JP20110551172T	20100217
JP2015017498 A2	20150129	JP20140191026	20140919
JP5684151 B2	20150311	JP20110551172T	20100217
JP5844868 B2	20160120	JP20140191026	20140919
MX2011001908 A1	20110620	MX20110001908	20090819
MX355677 B	20180425	MX20110001908	20090819
RU2011110388 A	20120927	RU20110110388	20090819

RU2011138270 A	20130327	RU20110138270	20100217
RU2522016 C2	20140710	RU20110110388	20090819
RU2551392 C2	20150520	RU20110138270	20100217
SG192915 A1	20130930	SG20130063839	20120224
SG192916 A1	20130930	SG20130063847	20120224
SG192918 A1	20130930	SG20130063862	20120224
US2010044102 AA	20100225	US20090543968	20090819
US2010044103 AA	20100225	US20090543986	20090819
US2010044104 AA	20100225	US20090544038	20090819
US2010044105 AA	20100225	US20090544094	20090819
US2010044106 AA	20100225	US20090544136	20090819
US2010215326 AA	20100826	US20100706576	20100216
US2012020631 AA	20120126	US20100840978	20100721
US2012067643 AA	20120322	US20110211729	20110817
US2012068086 AA	20120322	US20110210581	20110816
US2012074110 AA	20120329	US20110222931	20110831
US2012217015 AA	20120830	US20110034017	20110224
US2012217018 AA	20120830	US20110034175	20110224
US2012217019 AA	20120830	US20110034183	20110224
US2012248078 AA	20121004	US20120403692	20120223
US2012255774 AA	20121011	US20120403615	20120223
US2012255933 AA	20121011	US20120366882	20120206
US2012261188 AA	20121018	US20120403132	20120223
US2012266803 AA	20121025	US20120347445	20120110
US2012267168 AA	20121025	US20120403287	20120223
US2012273269 AA	20121101	US20120403723	20120223
US2012273470 AA	20121101	US20120403741	20120223
US2012275159 AA	20121101	US20120403509	20120223
US2013011102 AA	20130110	US20120486795	20120601
US2013175090 AA	20130711	US20130777650	20130226
US2013192893 AA	20130801	US20130800559	20130313
US2013192894 AA	20130801	US20130800933	20130313
US2013220626 AA	20130829	US20130849831	20130325
US2013228372 AA	20130905	US20130782869	20130301
US2013228557 AA	20130905	US20130768149	20130215
US2013266031 AA	20131010	US20130782942	20130301
US2013319984 AA	20131205	US20130966969	20130814
US2014000902 AA	20140102	US20130015003	20130830
US2014060802 AA	20140306	US20130800820	20130313
US2014060930 AA	20140306	US20130800879	20130313
US2014090846 AA	20140403	US20130105949	20131213
US2014190949 AA	20140710	US20140213212	20140314
US2014231085 AA	20140821	US20120565345	20120802
US2014231398 AA	20140821	US20130139680	20131223
US2014248025 AA	20140904	US20130057567	20131018
US2015129203 AA	20150514	US20130082026	20131115
US2015307174 AA	20151029	US20150791172	20150702
US2015308194 AA	20151029	US20140330980	20140714
US2015321290 AA	20151112	US20150803228	20150720
US2015322738 AA	20151112	US20130104395	20131212
US2016017661 AA	20160121	US20140335627	20140718
US2016084008 AA	20160324	US20150958864	20151203
US2016090790 AA	20160331	US20130852719	20130328
US2016186497 AA	20160630	US20150746382	20150622
US2016186524 AA	20160630	US20160064165	20160308
US2016187588 AA	20160630	US20160997072	20160115
US2016221125 AA	20160804	US20130080722	20131114
US2016222763 AA	20160804	US20130058681	20131021
US2016251940 AA	20160901	US20140214304	20140314
US2016299304 AA	20161013	US20160154718	20160513
US2016341906 AA	20161124	US20160147269	20160505
US2017016299 AA	20170119	US20160218509	20160725
US2017059854 AA	20170302	US20160140412	20160427
US2017183913 A9	20170629	US20130782869	20130301
US2017191314 AA	20170706	US20170445238	20170228
US2017214213 AA	20170727	US20130099948	20131207
US2017252858 AA	20170907	US20160349914	20161111
US2017266760 AA	20170921	US20170612679	20170602
US2017321486 AA	20171109	US20170656976	20170721
US2018045024 AA	20180215	US20170603192	20170523
US2018045895 AA	20180215	US20170788752	20171019
US2018163477 AA	20180614	US20170821411	20171122
US2018328150 AA	20181115	US20180048238	20180728
US2019040726 AA	20190207	US20180058546	20180808
US2019178036 AA	20190613	US20190267327	20190204
US2019240770 AA	20190808	US20190237691	20190101

US2019309576 AA	20191010	US20190442773	20190617
US2019383120 AA	20191219	US20190409815	20190511
US2020011145 AA	20200109	US20190458083	20190630
US8424617 BB	20130423	US20090544094	20090819
US8511401 BB	20130820	US20090544136	20090819
US8571368 BB	20131029	US20100840978	20100721
US8627901 BA	20140114	US20100896021	20101001
US8636085 BB	20140128	US20090543968	20090819
US8662160 BB	20140304	US20110210581	20110816
US8684088 BB	20140401	US20110034183	20110224
US8701794 BB	20140422	US20130800559	20130313
US8720575 BB	20140513	US20130849831	20130325
US8757292 BB	20140624	US20130800933	20130313
US8783360 BB	20140722	US20110034017	20110224
US8783361 BB	20140722	US20110034175	20110224
US8820434 BB	20140902	US20090544038	20090819
US8826973 BB	20140909	US20090543986	20090819
US8869914 BB	20141028	US20130800820	20130313
US8879876 BB	20141104	US20130057567	20131018
US8936108 BB	20150120	US20130800879	20130313
US8997894 BB	20150407	US20130777650	20130226
US9027668 BB	20150512	US20120403692	20120223
US9074422 BB	20150707	US20120403287	20120223
US9080425 BB	20150714	US20120347445	20120110
US9089928 BB	20150728	US20120565345	20120802
US9138786 BB	20150922	US20120366882	20120206
US9242309 BB	20160126	US20130768149	20130215
US9244235 BB	20160126	US20130782942	20130301
US9267330 BB	20160223	US20120403723	20120223
US9284783 BA	20160315	US20130852719	20130328
US9327810 BB	20160503	US20150791172	20150702
US9347271 BB	20160524	US20100706576	20100216
US9360631 BB	20160607	US20120403509	20120223
US9360643 BB	20160607	US20120486795	20120601
US9399269 BB	20160726	US20140213212	20140314
US9492885 BB	20161115	US20150803228	20150720
US9512679 BB	20161206	US20130104395	20131212
US9534447 BB	20170103	US20140335627	20140718
US9545692 BB	20170117	US20130080722	20131114
US9562395 BB	20170207	US20120403615	20120223
US9664012 BB	20170530	US20130105949	20131213
US9669492 BB	20170606	US20130966969	20130814
US9719302 BB	20170801	US20130782869	20130301
US9784037 BB	20171010	US20150746382	20150622
US9845652 BB	20171219	US20130015003	20130830
US10001612 BB	20180619	US20160154718	20160513
US10036232 BB	20180731	US20130058681	20131021
US10042123 BB	20180807	US20160147269	20160505
US10053967 BB	20180821	US20130082026	20131115
US10195687 BB	20190205	US20130139680	20131223
US10199798 BB	20190205	US20150958864	20151203
US10301912 BB	20190528	US20140214304	20140314
US10323460 BB	20190618	US20170821411	20171122
US10337273 BB	20190702	US20160218509	20160725
US10481339 BB	20191119	US20170788752	20171019
WO10096086 A1	20100826	WO2009US54295	20090819
WO10144160 A1	20101216	WO2010US24368	20100217
WO12012436 A2	20120126	WO2011US44548	20110719
WO12012436 A3	20120315	WO2011US44548	20110719
WO12024285 A1	20120223	WO2011US47902	20110816
WO12031009 A1	20120308	WO2011US50044	20110831
WO12096966 A2	20120719	WO2012US20789	20120110
WO12096966 A3	20121004	WO2012US20789	20120110
WO12116148 A1	20120830	WO2012US26265	20120223
WO12116153 A1	20120830	WO2012US26277	20120223
WO12116155 A1	20120830	WO2012US26280	20120223
WO12116284 A1	20120830	WO2012US26526	20120224
WO12161789 A1	20121129	WO2012US26471	20120224
WO12161797 A1	20121129	WO2012US26525	20120224
WO12167102 A1	20121206	WO2012US40490	20120601
WO13019959 A2	20130207	WO2012US49338	20120802
WO13019959 A3	20130328	WO2012US49338	20120802
WO13130302 A1	20130906	WO2013US26673	20130219
WO14036430 A2	20140306	WO2013US57569	20130830
WO14036430 A3	20140626	WO2013US57569	20130830
WO14078663 A2	20140522	WO2013US70321	20131115

WO14089544 A3	20140807	WO2013US73760	20131207
WO14144591 A2	20140918	WO2014US29067	20140314
WO14144591 A3	20141211	WO2014US29067	20140314
WO14144887 A2	20140918	WO2014US29482	20140314
WO14144887 A3	20141204	WO2014US29482	20140314
WO14149114 A2	20140925	WO2013US77614	20131223
WO14149114 A3	20150115	WO2013US77614	20131223
WO18075799 A1	20180426	WO2017US57442	20171019

Priority:

US20080090384P	20080820	US20080110273P	20081003	US20080102730P	20081003
US20080106472P	20081017	US20090320581	20090129	US20090153271P	20090217
CA20092734492	20090819	CA20092823922	20090819	JP20110523959	20090819
JP20110523959T	20090819	US20090543968	20090819	US20090543986	20090819
US20090544094	20090819	US20090544136	20090819	US20090544038	20090819
WO2009US54295	20090819	US20090247796P	20091001	US20100295562P	20100115
US20100706576	20100216	WO2010US24368	20100217	US20100840978	20100721
US20100374594P	20100817	US20100378910P	20100831	US20100896021	20101001
US20110431827P	20110111	US20110439970P	20110207	US20110431830P	20110207
US20110034037	20110224	US20110034017	20110224	US20110034175	20110224
US20110034183	20110224	US20110446412P	20110224	US20110446407P	20110224
US20110446047P	20110224	US20110446312P	20110224	US20110446042P	20110224
US20110446041P	20110224	US20110446043P	20110224	US20110446040P	20110224
US20110493174P	20110603	WO2011US44548	20110719	US20110514391P	20110802
US20110210581	20110816	WO2011US47902	20110816	US20110211729	20110817
US20110222931	20110831	WO2011US50044	20110831	US20120347445	20120110
WO2012US20789	20120110	US20120366882	20120206	US20120403692	20120223
US20120403287	20120223	US20120403723	20120223	US20120403741	20120223
US20120403509	20120223	US20120403615	20120223	US20120403132	20120223
WO2012US26265	20120223	WO2012US26526	20120224	WO2012US26471	20120224
WO2012US26525	20120224	US20120605429P	20120301	US20120605422P	20120301
US20120605413P	20120301	US20120605401P	20120301	US20120605434P	20120301
US20120486795	20120601	WO2012US40490	20120601	US20120565345	20120802
WO2012US49338	20120802	US20120696142P	20120901	US20120727096P	20121115
US20120734809P	20121207	US20120745661P	20121224	US20130755745P	20130123
US20130768149P	20130215	US20130768149	20130215	EP20130754543	20130219
WO2013US26673	20130219	US20130777650	20130226	US20130782869	20130301
US20130782942	20130301	US20130800559	20130313	US20130800933	20130313
US20130800820	20130313	US20130800879	20130313	US20130786687P	20130315
US20130786875P	20130315	US20130786763P	20130315	US20130798875P	20130315
US20130849831	20130325	US20130852719	20130328	US20130966969	20130814
US20130015003	20130830	WO2013US57569	20130830	US20130057567	20131018
US20130058681	20131021	US20130080722	20131114	US20130082026	20131115
WO2013US70321	20131115	US20130099948	20131207	WO2013US73760	20131207
US20130104395	20131212	US20130105949	20131213	US20130139680	20131223
US20140213212	20140314	US20140214304	20140314	WO2014US29067	20140314
US20140270288	20140505	US20140330980	20140714	US20140335627	20140718
US20150746382	20150622	US20150791172	20150702	US20150803228	20150720
US20150958864	20151203	US20150262870P	20151203	US20150266509P	20151211
US20160997072	20160115	US20160064165	20160308	US20160140412	20160427
US20160147269	20160505	US20160154718	20160513	US20160218509	20160725
US20160410724P	20161020	US20160349914	20161111	US20160425793P	20161123
US20170445238	20170228	US20170603192	20170523	US20170612679	20170602
US20170656976	20170721	US20170788752	20171019	US20170821411	20171122
US20180048238	20180728	US20180058546	20180808	US20190237691	20190101
US20190267327	20190204	US20190409815	20190511	US20190442773	20190617
US20190458083	20190630				

Probable Assignee: FORO ENERGY INC

Assignee(s): (std): KOBLICK YESHAYA ; LAND MARK S ; MESNARD DAVID R ; MOXLEY JOEL F ; NEHLSSEN JAMES P ; NORTON RYAN J ; RINZLER CHARLES C ; ZEDIKER MARK S ; ZIMMERMAN TOM ; YEARWOOD JOHN ; VOLKMAR JOHN F ; KOLACHALAM SHARARTH ; KELLERMANN FRED C ; ALLEN ERIK C ; MCKAY RYAN P ; GRAY WILLIAM C ; DEWITT RONALD A ; DEUTCH PAUL D ; FORO ENERGY INC STAR ; WOLFE DANIEL L ; MARSHALL SCOTT A ; MAKKI SIAMAK ; LINYAEV EUGENE J ; KOLACHALAM SHARATH K ; CLARK PHILIP V ; BERGERON HENRY A ; BAILEY ANDYLE G ; UNDERWOOD LANCE D ; SCHROIT SAM N ; LINYAEV EUGENCE J ; KOLACHALAM SHARARTH K ; JONES ALBERTUS REBECCA ; HAVLINEK KENNETH L ; GRUBB DARYL L ; FRAZE JASON D ; FORO ENERGY ; FORD ENERGY INC ; FAIRDOTH BRIAN O ; FAIRCLOTH BRIAN O ; FAIRCLOTH BRIAN O ; FORO EHNERDZHI INK ; FORO ENERGY INC ; ELY JOHN ; DEWITT RON A ; DE WITT RONALD A ; CHEVRON USA INC

Assignee(s): DEUTSCH PAUL D ; FORO ENERGY INC LITTLETON ; ENERGY UNITED STATES DEPARTMENT OF ; CHEVRON U S A INC ; ELY JOHN L

Inventor(s): (std): CLARK PHILIP V ; DANIEL L WOLFE ; DARYL L GRUBB ; ELY JOHN L ; FAIRCLOTH BRIAN O ; FAIRCLOTH BRIAN O ; FAIRDOTH BRIAN O ; HAVLINEK KENNETH L ; ANDYLE G BAILEY ; BAILEY ANDYLE G ; BERGERON HENRY A ; KELLERMANN FRED C ; KOBLICK YESHAYA ; LAND MARK S ; MESNARD DAVID R ; MOXLEY JOEL F ; NORTON RYAN J ; PAUL D DEUTCH ; RINZLER CHARLES C ; SHARATH K KOLACHALAM ; WOLFE DANIEL L ; YEARWOOD JOHN ; ZEDIKER MARK S ; ZIMMERMAN TOM ; KOLACHALAM SHARARTH K ; GRUBB DARYL ; MOKSLI DZHOEL F ; MARSHALL SCOTT A ; MARK S ZEDIKER ; MARK S LAND ; MAKKI SIAMAK ; LINYAEV EUGENE J ; LEHND MARK S ; YESHAYA KOBLICK ; UNDERWOOD LANCE D ; SCHROIT SAM N ; RINZLER CHARL Z K ; KOLACHALAM SHARATH K ; KOBLIK JESHAYA ; JONES ALBERTUS REBECCA ; JOEL F MOXLEY ; DEWITT RON A ; DE WITT RONALD A ; CHARLES C RINZLER ; BRIAN O FAIRCLOTH ; VOLKMAR JOHN F ; MCKAY RYAN P ; LINYAEV EUGENCE J ; LEE IAN ; KUZNETSOV ANDREY ; KOLACHALAM SHARARTH ; GRAY WILLIAM C ; FRAZE JASON D ; FAIRCLOTH BRIAN ; ALLEN ERIK C ; GRUBB DARYL L ; FEHRKLOT BRAJAN O ; ELY JOHN ; DEWITT RONALD A ; DEUTCH PAUL D ; NEHLSSEN JAMES P

Inventor(s): FAIRCLOTH BRIAN O EVERGREEN ; ZEDIKER MARK S CASTLE ROCK ; ERIK C ALLEN ; HENRY A BERGERON ; GRUBB DARYL L HOUSTON ; PHILIP V CLARK ; KOLACHALAM SHARATH K SUGAR LAND ; DEUTSCH PAUL D ; MARK SZEDIKER ; BRIAN OFAIRCLOTH ; CHARLES CRINZLER ; JOEL FMOXLEY

Agent(s): SPRUSON AND FERGUSON ; CASSAN MACLEAN ; CASSAN MACLEAN IP AGENCY INC ; BUNGARTZ KLAUS PETER ; BUNGARTZ CHRISTOPHERSEN PARTNERSCHAFT MBB PATENTANWALTE ; TERSTEEGEN FELIX ; BTB IP BUNGARTZ BALTZER PARTNERSCHAFT MBB PATENTANWALTE ; BUNGARTZ CHRISTOPHERSEN

PARTNERSCHAFT MBB PATENTANWAELTE; SABA AND CO TMP; SAUD M A SHAWWAF LAW OFFICE; ITOH SHIGERU; BRINKS HOFER GILSON AND LIONE; FORO ENERGY/BHGL; FORO ENERGY BHGL; GLEN; GLEN P; STEPTOE AND JOHNSON LLP; STEPTOE AND JOHNSON; BRIAN; STEPTOE AND JOHNSON LLC; BELVIS LAW LLC; BELVIS GLEN P; FREEMAN JOHN C; BELVIS GLEN P ET AL

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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU2009340454 AA	20100826	LSPB	+	published / reissued	
AU2009340454 AA	20170323	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2) (E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU201222154 AA	20120830	LSPB	+	published / reissued	
AU201222154 AA	20170413	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2) (E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2012259435 AA	20121129	LSPB	+	published / reissued	
AU2012259435 AA	20130912	LSPB	+	published / reissued	
AU2012259435 AA	20170119	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012259435 AA	20170119	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012259435 BB	20160922	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2012259435 BB	20320224	PEXP		Calculated Patent Term Expiry	
AU2012259443 AA	20121129	LSPB	+	published / reissued	
AU2012259443 AA	20130912	LSPB	+	published / reissued	
AU2012259443 AA	20170504	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2) (E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2012259443 AA	20170504	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2) (E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2014228980 AA	20151008	LSPB	+	published / reissued	
AU2014228980 BB	20180222	LSGT	+	granted / extensions (spc, cpc, pte)	

AU2014228980 BB	20180621	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2014228980 BB	20340314	PEXP		Calculated Patent Term Expiry	
BR112013001512 A2	20160607	LSPB	+	published / reissued	
BR112013021478 A2	20161011	LSPB	+	published / reissued	
BR112013021478 A2	20200218	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
BR112013021480 A2	20161011	LSPB	+	published / reissued	
BR112013021480 A2	20200218	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
BR112015004458 A2	20170704	LSPB	+	published / reissued	
BRPI0918403 A2	20151124	LSPB	+	published / reissued	
BRPI0918403 A2	20181023	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0918403 A2	20190129	LSRV	B09B	DECISION: REFUSAL	
BRPI0918403 A2	20190416	LSRV	B09B	DECISION: REFUSAL	TEXT : MANTIDO O INDEFERIMENTO UMA VEZ QUE NAO FOI APRESENTADO RECURSO DENTRO DO PRAZO LEGAL
CA2734492 AA	20100826	LSPB	+	published / reissued	
CA2734492 AA	20110216	LSES	+EEER	EXAMINATION REQUEST	
CA2734492 C	20160517	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2734492 C	20290819	PEXP		Calculated Patent Term Expiry	
CA2805437 AA	20130114	LSPB	+	published / reissued	
CA2805437 AA	20130224	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20130114
CA2805437 C	20160906	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2805437 C	20310719	PEXP		Calculated Patent Term Expiry	
CA2808214 AA	20130212	LSPB	+	published / reissued	
CA2808214 AA	20130321	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20130212
CA2808214 C	20160223	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2808214 C	20310816	PEXP		Calculated Patent Term Expiry	
CA2823922 AA	20100826	LSPB	+	published /	

				reissued	
CA2823922 AA	20130925	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20130819
CA2823922 AA	20180220	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180109
CA2827958 AA	20130821	LSPB	+	published / reissued	
CA2827958 AA	20180409	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180226
CA2827963 AA	20130821	LSPB	+	published / reissued	
CA2827963 AA	20180409	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180226
CA2827979 AA	20130821	LSPB	+	published / reissued	
CA2827979 AA	20180409	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180226
CA2891500 AA	20150513	LSPB	+	published / reissued	
CA2891500 AA	20180703	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20180626
CA2906738 AA	20150914	LSPB	+	published / reissued	
CA2906738 AA	20190205	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190131
CN102187046 A	20110914	LSPB	+	published / reissued	
CN102187046 A	20110914	LSPB	+C06	PUBLICATION	
CN102187046 B	20150429	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102187046 B	20150429	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102187046 B	20290819	PEXP		Calculated Patent Term Expiry	
CN103492668 A	20140101	LSPB	+	published / reissued	
CN103492668 A	20140101	LSPB	+C06	PUBLICATION	
CN103492668 A	20170215	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103492668 B	20170215	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103492668 B	20320224	PEXP		Calculated Patent Term Expiry	
CN103492669 A	20140101	LSPB	+	published / reissued	
CN103492669 A	20140101	LSPB	+C06	PUBLICATION	
CN103492669 A	20160824	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN103502564 A	20140108	LSPB	+	published / reissued	
CN103502564 A	20140108	LSPB	+C06	PUBLICATION	
CN103502564 A	20160706	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
DK2678519 T3	20190805	LSGT	+	granted /	

				extensions (spc, cpc, pte)	
DK2678519 T3	20320224	PEXP		Calculated Patent Term Expiry	
EP2315904 A1	20110504	LSPB	+	published / reissued	
EP2315904 A1	20110504	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110218
EP2315904 A4	20160420	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20160321
EP2315904 A4	20170301	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170130
EP2315904 A4	20181212	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181116
EP2315904 B1	20190206	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2315904 B1	20190206	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2315904 B1	20190215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2315904 B1	20190215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1095022 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190215
EP2315904 B1	20190306	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2315904 B1	20190307	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602009056961 COUNTRY OF REF DOCUMENT : DE
EP2315904 B1	20190513	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20190206
EP2315904 B1	20190625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2315904 B1	20190731	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 : 20190206
EP2315904 B1	20190731	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 : 20190206
EP2315904 B1	20190731	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 : 20190606
EP2315904 B1	20190731	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT : NL

EP2315904 B1	20190731	LSLE	-PG25	CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [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 : 20190206 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 : 20190206
EP2315904 B1	20190815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1095022 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190206
EP2315904 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190206
EP2315904 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 : 20190506
EP2315904 B1	20190830	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 : 20190507
EP2315904 B1	20190830	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 : 20190206
EP2315904 B1	20190830	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 : 20190606
EP2315904 B1	20191031	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 : 20190206
EP2315904 B1	20191031	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 : 20190206
EP2315904 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190206
EP2315904 B1	20191031	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 : 20190206
EP2315904 B1	20191031	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 : 20190206
EP2315904 B1	20191031	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 : 20190206
EP2315904 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 : 20190206
EP2315904 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 11
EP2315904 B1	20191107	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602009056961 COUNTRY OF REF DOCUMENT : DE
EP2315904 B1	20191129	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 : 20190206
EP2315904 B1	20191129	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 : 20190206
EP2315904 B1	20191231	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 : 20190206
EP2315904 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190715 YEAR OF FEE PAYMENT : 11
EP2315904 B1	20200115	LSGT	+26N	NO OPPOSITION	EFFECTIVE DATE : 20191107

FILED					
EP2315904 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190206
EP2315904 B1	20200303	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602009056961 COUNTRY OF REF DOCUMENT : DE
EP2315904 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190206
EP2315904 B1	20290819	PEXP		Calculated Patent Term Expiry	
EP2399155 A1	20111228	LSPB	+	published / reissued	
EP2399155 A1	20111228	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110919
EP2399155 A4	20140709	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140610
EP2399155 A4	20150408	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20150304
EP2399155 A4	20151216	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20150715
EP2596395 A2	20130529	LSPB	+	published / reissued	
EP2596395 A2	20130529	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130218
EP2596395 A4	20171227	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20171129
EP2596395 A4	20200325	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20200225
EP2606201 A1	20130626	LSPB	+	published / reissued	
EP2606201 A1	20130626	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130314
EP2606201 A4	20180307	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20180207
EP2606201 A4	20200108	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20191210
EP2611566 A1	20130710	LSPB	+	published / reissued	
EP2611566 A1	20130710	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130325
EP2611566 A4	20171108	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN	EFFECTIVE DATE : 20171009

				UP AND DESPATCHED (CORRECTED)	
EP2611566 A4	20180808	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20180301
EP2664010 A2	20131120	LSPB	+	published / reissued	
EP2664010 A2	20131120	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130730
EP2664010 A4	20180627	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20180528
EP2678512 A1	20140101	LSPB	+	published / reissued	
EP2678512 A1	20140101	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130920
EP2678512 A4	20170614	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20170517
EP2678512 A4	20180627	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20171213
EP2678519 A1	20140101	LSPB	+	published / reissued	
EP2678519 A1	20140101	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130920
EP2678519 A4	20170823	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20170725
EP2678519 A4	20190327	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190227
EP2678519 A4	20190327	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC.
EP2678519 A4	20190327	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.
EP2678519 A4	20190508	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.
EP2678519 B1	20190626	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2678519 B1	20190626	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2678519 B1	20190628	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2678519 B1	20190715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1148496 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190715
EP2678519 B1	20190718	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012061424 COUNTRY OF REF DOCUMENT : DE
EP2678519 B1	20190724	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D

EP2678519 B1	20190916	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20190626
EP2678519 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 : 20190626
EP2678519 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 : 20190626
EP2678519 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 : 20190626
EP2678519 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 : 20190626
EP2678519 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 : 20190626
EP2678519 B1	20191111	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2678519 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 : 20190927
EP2678519 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 : 20190926
EP2678519 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 : 20190626
EP2678519 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 : 20190626
EP2678519 B1	20200115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1148496

COUNTRY OF REF DOCUMENT : AT
 KIND CODE OF REF DOCUMENT : T
 DESIGNATED STATE(S) :
 EFFECTIVE DATE : 20190626

EP2678519 B1	20200131	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 : 20190626
EP2678519 B1	20200131	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 : 20190626
EP2678519 B1	20200131	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 : 20190626
EP2678519 B1	20200131	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 : 20190626
EP2678519 B1	20200131	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 : 20190626
EP2678519 B1	20200131	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 : 20191028
EP2678519 B1	20200228	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 : 20191026
EP2678519 B1	20200228	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 : 20190626
EP2678519 B1	20200228	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 : 20190626
EP2678519 B1	20200228	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

EP2678519 B1	20200331	LSLE	-PG25	FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20190626 COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190626
EP2678519 B1	20200501	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190626
EP2678519 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20200130 YEAR OF FEE PAYMENT : 9
EP2678519 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20200127 YEAR OF FEE PAYMENT : 9
EP2678519 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20200124 YEAR OF FEE PAYMENT : 9
EP2678519 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20200207 YEAR OF FEE PAYMENT : 9
EP2678519 B1	20320224	PEXP		Calculated Patent Term Expiry	
EP2678520 A1	20140101	LSPB	+	published / reissued	
EP2678520 A1	20140101	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130920
EP2678520 A4	20180328	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20180222
EP2678520 A4	20180530	LSWD	-18W	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20180423
EP2678521 A1	20140101	LSPB	+	published / reissued	
EP2678521 A1	20140101	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130920
EP2678521 A4	20180307	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20180207
EP2678521 A4	20190213	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20180901
EP2715887 A1	20140409	LSPB	+	published / reissued	

EP2715887 A1	20140409	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20131219
EP2715887 A4	20161123	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20161020
EP2715887 A4	20171115	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20170519
EP2739429 A2	20140611	LSPB	+	published / reissued	
EP2739429 A2	20140611	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140228
EP2739429 A4	20161102	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20161006
EP2739429 A4	20171004	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170904
EP2739429 A4	20180711	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180615
EP2739429 A4	20190814	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190719
EP2739429 B1	20200212	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2739429 B1	20200212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2739429 B1	20200214	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2739429 B1	20200215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1231453 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20200215
EP2739429 B1	20200227	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012067757 COUNTRY OF REF DOCUMENT : DE
EP2739429 B1	20200304	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2739429 B1	20320802	PEXP		Calculated Patent Term Expiry	
EP2820466 A1	20150107	LSPB	+	published / reissued	
EP2820466 A1	20150107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20141001
EP2820466 A4	20160330	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20160229
EP2820466 A4	20180829	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180803
EP2820466 B1	20181010	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2820466 B1	20181010	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D

EP2820466 B1	20181015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2820466 B1	20181015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1051920 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181015
EP2820466 B1	20181031	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2820466 B1	20181108	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602013044874 COUNTRY OF REF DOCUMENT : DE
EP2820466 B1	20190225	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2820466 B1	20190315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1051920 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20190210
EP2820466 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 : 20190110
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20190110
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190312 YEAR OF FEE PAYMENT : 7
EP2820466 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190118 YEAR OF FEE PAYMENT : 7
EP2820466 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 : 20190111
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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

EP2820466 B1	20190531	LSLE	-PG25	FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20181010 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 : 20190210
EP2820466 B1	20190711	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602013044874 COUNTRY OF REF DOCUMENT : DE
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 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 : 20181010
EP2820466 B1	20190918	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190711
EP2820466 B1	20190930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2820466 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181010
EP2820466 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190219
EP2820466 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181010
EP2820466 B1	20191127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2820466 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190228
EP2820466 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190228
EP2820466 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190219
EP2820466 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190228
EP2820466 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190228
EP2820466 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181010
EP2820466 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20200124 YEAR OF FEE PAYMENT : 8
EP2820466 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20200130 YEAR OF FEE PAYMENT : 8

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP2820466 B1	20330219	PEXP		Calculated Patent Term Expiry	
EP2890859 A2	20150708	LSPB	+	published / reissued	
EP2890859 A2	20150708	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150331
EP2890859 A4	20161102	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20161006
EP2890859 A4	20171115	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20170505
EP2929602 A2	20151014	LSPB	+	published / reissued	
EP2929602 A2	20151014	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150707
EP2929602 A4	20161221	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20161123
EP2929602 A4	20190710	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190605
GC3576 A	20150604	LSGT	+	granted / extensions (spc, cpc, pte)	
GC3576 A	20291031	PEXP		Calculated Patent Term Expiry	
GC5934 A	20170716	LSGT	+	granted / extensions (spc, cpc, pte)	
GC5934 A	20330302	PEXP		Calculated Patent Term Expiry	
JP2012500350 T2	20120105	LSPB	+	published / reissued	
JP2012500350 T2	20120821	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120820
JP2012500350 T2	20120821	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20120820
JP2012500350 T2	20120904	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120903
JP2012500350 T2	20130828	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130827
JP2012500350 T2	20140227	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140226
JP2012500350 T2	20140521	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20140520
JP2012518210 T2	20120809	LSPB	+	published / reissued	
JP2012518210 T2	20130216	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130215

JP2012518210 T2	20130216	LSSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130215
JP2012518210 T2	20130918	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130917
JP2012518210 T2	20140318	LSRE	A524	WRITTEN SUBMISSION OF COPY OF AMENDMENT UNDER SECTION 19 (PCT)	TEXT : JAPANESE INTERMEDIATE CODE: A524 EFFECTIVE DATE : 20140317
JP2012518210 T2	20140910	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140909
JP2012518210 T2	20141202	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141201
JP2012518210 T2	20141212	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012518210 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
JP2012518210 T2	20150122	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150114
JP2012518210 T2	20150123	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5684151 COUNTRY OF REF DOCUMENT : JP
JP2015017498 A2	20150129	LSPB	+	published / reissued	
JP2015017498 A2	20150708	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150707
JP2015017498 A2	20151001	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20151001
JP2015017498 A2	20151105	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2015017498 A2	20151112	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20151111
JP2015017498 A2	20151126	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20151119
JP2015017498 A2	20151127	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5844868 COUNTRY OF REF DOCUMENT : JP
JP5684151 B2	20150311	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5684151 B2	20150108	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5684151 B2	20150120	LSFE	R100	特許料納付書 (Patent fee payment form)	

JP5684151 B2	20150123	LSGT	+R150	特許証 (Patent certificate)	
JP5684151 B2	20180125	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5684151 B2	20180130	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5684151 B2	20181227	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5684151 B2	20190108	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5684151 B2	20200110	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200109
JP5684151 B2	20200114	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5684151 B2	20300217	PEXP		Calculated Patent Term Expiry	
JP5844868 B2	20160120	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5844868 B2	20151119	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5844868 B2	20151124	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5844868 B2	20151127	LSGT	+R150	特許証 (Patent certificate)	
JP5844868 B2	20181011	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5844868 B2	20181016	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5844868 B2	20191031	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191024
JP5844868 B2	20191105	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5844868 B2	20340919	PEXP		Calculated Patent Term Expiry	
MX2011001908 A1	20110620	LSPB	+	published / reissued	
MX2011001908 A1	20180425	LSGT	+FG	GRANT OR REGISTRATION	
MX355677 B	20180425	LSGT	+	granted / extensions (spc, cpc, pte)	
MX355677 B	20290819	PEXP		Calculated Patent Term Expiry	
RU2011110388 A	20120927	LSPB	+	published / reissued	
RU2011138270 A	20130327	LSPB	+	published / reissued	
RU2522016 C2	20140710	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2522016 C2	20290819	PEXP		Calculated Patent Term Expiry	
RU2551392 C2	20150520	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2551392 C2	20300217	PEXP		Calculated Patent Term Expiry	

SG192915 A1	20130930	LSPB	+	published / reissued	
SG192916 A1	20130930	LSPB	+	published / reissued	
SG192918 A1	20130930	LSPB	+	published / reissued	
US10001612 BB	20180619	LSGT	+	granted / extensions (spc, cpc, pte)	
US10001612 BB	20360513	PEXP		Calculated Patent Term Expiry	
US10036232 BB	20180731	LSGT	+	granted / extensions (spc, cpc, pte)	
US10036232 BB	20140106	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEWITT, RONALD A.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20111107 TO 20111202; REEL/FRAME:031900/0416
US10036232 BB	20180711	LSGT	PAT1	Patented Case	
US10036232 BB	20350131	PEXP		Calculated Patent Term Expiry (PTA 467 days and a terminal disclaimer has been filed)	
US10042123 BB	20180807	LSGT	+	granted / extensions (spc, cpc, pte)	
US10042123 BB	20160728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C; GRAY, WILLIAM C; FRAZE, JASON D; AND OTHERS; REEL/FRAME:039284/0712 EFFECTIVE DATE : 20120919
US10042123 BB	20180718	LSGT	PAT1	Patented Case	
US10042123 BB	20360505	PEXP		Calculated Patent Term Expiry	
US10053967 BB	20180821	LSGT	+	granted / extensions (spc, cpc, pte)	
US10053967 BB	20140815	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEUTCH, PAUL D.; DE WITT, RONALD A.; KELLERMANN, FRED C.; AND OTHERS; SIGNING DATES FROM 20140204 TO 20140209; REEL/FRAME:033545/0460
US10053967 BB	20180801	LSGT	PAT1	Patented Case	
US10053967 BB	20350405	PEXP		Calculated Patent Term Expiry (PTA 506 days)	
US10195687 BB	20190205	LSGT	+	granted / extensions (spc, cpc, pte)	
US10195687 BB	20140814	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LAND, MARK S.; VOLKMAR, JOHN F.; ZEDIKER, MARK S.; AND OTHERS; SIGNING DATES FROM 20140203 TO 20140725;

US10195687 BB	20190116	LSGT	PAT1	Patented Case	
US10195687 BB	20351211	PEXP		Calculated Patent Term Expiry (PTA 718 days)	
US10199798 BB	20190205	LSGT	+	granted / extensions (spc, cpc, pte)	
US10199798 BB	20190116	LSGT	PAT1	Patented Case	
US10199798 BB	20351226	PEXP		Calculated Patent Term Expiry (PTA 23 days)	
US10301912 BB	20190528	LSGT	+	granted / extensions (spc, cpc, pte)	
US10301912 BB	20160622	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEWITT, RONALD A; NEHLSSEN, JAMES P; MOXLEY, JOEL F; AND OTHERS; SIGNING DATES FROM 20160421 TO 20160610; REEL/FRAME:038980/0071
US10301912 BB	20190508	LSGT	PAT1	Patented Case	
US10301912 BB	20361202	PEXP		Calculated Patent Term Expiry (PTA 994 days)	
US10323460 BB	20190618	LSGT	+	granted / extensions (spc, cpc, pte)	
US10323460 BB	20171122	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10323460 BB	20171227	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10323460 BB	20371122	PEXP		Calculated Patent Term Expiry	
US10337273 BB	20190702	LSGT	+	granted / extensions (spc, cpc, pte)	
US10337273 BB	20370810	PEXP		Calculated Patent Term Expiry (PTA 381 days)	
US10481339 BB	20191119	LSGT	+	granted / extensions (spc, cpc, pte)	
US10481339 BB	20171019	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10481339 BB	20171101	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10481339 BB	20371026	PEXP		Calculated Patent Term Expiry (PTA 7 days)	
US2010044102 AA	20100225	LSPB	+	published / reissued	
US2010044102 AA	20140108	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010044103 AA	20100225	LSPB	+	published / reissued	

US2010044103 AA	20140820	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010044104 AA	20100225	LSPB	+	published / reissued	
US2010044104 AA	20140813	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010044105 AA	20100225	LSPB	+	published / reissued	
US2010044105 AA	20130403	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010044106 AA	20100225	LSPB	+	published / reissued	
US2010044106 AA	20130307	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:029938/0294
US2010044106 AA	20130731	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010215326 AA	20100826	LSPB	+	published / reissued	
US2010215326 AA	20110304	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KOBlick, YESHAYA; REEL/FRAME:025900/0904 EFFECTIVE DATE : 20110213
US2010215326 AA	20160504	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012020631 AA	20120126	LSPB	+	published / reissued	
US2012020631 AA	20131009	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012067643 AA	20120322	LSPB	+	published / reissued	
US2012067643 AA	20111206	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEWITT, RON A.; ZEDIKER, MARK S.; RINZLER, CHARLES S.; AND OTHERS; SIGNING DATES FROM 20111110 TO 20111202; REEL/FRAME:027340/0897
US2012067643 AA	20170405	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012068086 AA	20120322	LSPB	+	published / reissued	
US2012068086 AA	20140106	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEWITT, RONALD A.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20111107 TO 20111202; REEL/FRAME:031900/0416
US2012068086 AA	20140212	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012074110 AA	20120329	LSPB	+	published /	

reissued					
US2012074110 AA	20111215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; GRUBB, DARYL L.; KOLACHALAM, SHARATH K.; AND OTHERS; SIGNING DATES FROM 20111107 TO 20111201; REEL/FRAME:027391/0191
US2012074110 AA	20150706	LSES	NFA1	Non Final Action Mailed	
US2012074110 AA	20161121	LSES	NFA1	Non Final Action Mailed	
US2012074110 AA	20170731	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012217015 AA	20120830	LSPB	+	published / reissued	
US2012217015 AA	20140702	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012217018 AA	20120830	LSPB	+	published / reissued	
US2012217018 AA	20140702	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012217019 AA	20120830	LSPB	+	published / reissued	
US2012217019 AA	20140312	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012248078 AA	20121004	LSPB	+	published / reissued	
US2012248078 AA	20150422	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012255774 AA	20121011	LSPB	+	published / reissued	
US2012255774 AA	20170118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012255933 AA	20121011	LSPB	+	published / reissued	
US2012255933 AA	20150902	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012261188 AA	20121018	LSPB	+	published / reissued	
US2012261188 AA	20120706	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; ALLEN, ERIK C.; SIGNING DATES FROM 20120517 TO 20120605; REEL/FRAME:028497/0831
US2012261188 AA	20161102	LSES	NFA1	Non Final Action Mailed	
US2012261188 AA	20170824	LSES	NFA1	Non Final Action Mailed	
US2012261188 AA	20180411	LSES	NFA1	Non Final Action Mailed	
US2012261188 AA	20190219	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012266803 AA	20121025	LSPB	+	published / reissued	
US2012266803 AA	20150624	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2012267168 AA	20121025	LSPB	+	published / reissued	
US2012267168 AA	20150617	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012273269 AA	20121101	LSPB	+	published / reissued	
US2012273269 AA	20160203	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012273470 AA	20121101	LSPB	+	published / reissued	
US2012273470 AA	20120713	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; REEL/FRAME:028541/0978 EFFECTIVE DATE : 20120517
US2012273470 AA	20170307	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012275159 AA	20121101	LSPB	+	published / reissued	
US2012275159 AA	20160518	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013011102 AA	20130110	LSPB	+	published / reissued	
US2013011102 AA	20160518	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013175090 AA	20130711	LSPB	+	published / reissued	
US2013175090 AA	20150220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S., MR.; RINZLER, CHARLES C., MR.; FAIRCLOTH, BRIAN O., MR.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:034999/0249
US2013175090 AA	20150318	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013192893 AA	20130801	LSPB	+	published / reissued	
US2013192893 AA	20140402	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013192894 AA	20130801	LSPB	+	published / reissued	
US2013192894 AA	20140509	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:032861/0013
US2013192894 AA	20140604	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013220626 AA	20130829	LSPB	+	published / reissued	
US2013220626 AA	20140327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.;

					BERGERON, HENRY A.; CLARK, PHILIP V.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:032542/0127
US2013220626 AA	20140327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; BERGERON, HENRY A.; CLARK, PHILIP V.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:032542/0127
US2013220626 AA	20140423	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013228372 AA	20130905	LSPB	+	published / reissued	
US2013228372 AA	20160125	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LINYAEV, EUGENE J.; ZEDIKER, MARK S.; GRUBB, DARYL L.; AND OTHERS; SIGNING DATES FROM 20150120 TO 20150602; REEL/FRAME:037575/0336
US2013228372 AA	20160125	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : EMPLOYEE AGREEMENT; ASSIGNOR:SCHROIT, SAM; REEL/FRAME:037590/0976 EFFECTIVE DATE : 20100322
US2013228372 AA	20170525	LSER	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2013228372 AA	20170623	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2013228372 AA	20170626	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2013228557 AA	20130905	LSPB	+	published / reissued	
US2013228557 AA	20150522	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; KOLACHALAM, SHARATH K.; AND OTHERS; SIGNING DATES FROM 20150420 TO 20150422; REEL/FRAME:035702/0220
US2013228557 AA	20160106	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013266031 AA	20131010	LSPB	+	published / reissued	
US2013266031 AA	20141018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:NORTON, RYAN J.; MCKAY, RYAN P.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20140909 TO 20140915; REEL/FRAME:033976/0255
US2013266031 AA	20160106	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013319984 AA	20131205	LSPB	+	published / reissued	

US2013319984 AA	20140806	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LINYAEV, EUGENE J.; MARSHALL, SCOTT A.; GRUBB, DARYL L.; AND OTHERS; SIGNING DATES FROM 20140203 TO 20140207; REEL/FRAME:033474/0049
US2013319984 AA	20170427	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2013319984 AA	20170517	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014000902 AA	20140102	LSPB	+	published / reissued	
US2014000902 AA	20150515	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WOLFE, DANIEL L.; GRUBB, DARYL L.; DEUTCH, PAUL D.; AND OTHERS; SIGNING DATES FROM 20150420 TO 20150427; REEL/FRAME:035652/0351
US2014000902 AA	20150515	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WOLFE, DANIEL L.; GRUBB, DARYL L.; DEUTCH, PAUL D.; AND OTHERS; SIGNING DATES FROM 20150420 TO 20150427; REEL/FRAME:035652/0351
US2014000902 AA	20170321	LSES	NFA1	Non Final Action Mailed	
US2014000902 AA	20170616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEVRON, U.S.A. INC.,; REEL/FRAME:042734/0962 EFFECTIVE DATE : 20170117
US2014000902 AA	20170810	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014000902 AA	20171113	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2014000902 AA	20171114	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014000902 AA	20171129	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014060802 AA	20140306	LSPB	+	published / reissued	
US2014060802 AA	20140723	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:033373/0862
US2014060802 AA	20141008	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014060930 AA	20140306	LSPB	+	published / reissued	

US2014060930 AA	20140722	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:033364/0486
US2014060930 AA	20141230	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014090846 AA	20140403	LSPB	+	published / reissued	
US2014090846 AA	20140814	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEUTCH, PAUL D.; MARSHALL, SCOTT A.; GRUBB, DARYL L.; AND OTHERS; SIGNING DATES FROM 20140812 TO 20140813; REEL/FRAME:033536/0434
US2014090846 AA	20170510	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014190949 AA	20140710	LSPB	+	published / reissued	
US2014190949 AA	20140827	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; GRUBB, DARYL L.; AND OTHERS; SIGNING DATES FROM 20140815 TO 20140818; REEL/FRAME:033621/0769
US2014190949 AA	20160705	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014231085 AA	20140821	LSPB	+	published / reissued	
US2014231085 AA	20150708	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014231398 AA	20140821	LSPB	+	published / reissued	
US2014231398 AA	20180316	LSES	NFA1	Non Final Action Mailed	
US2014231398 AA	20190116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014248025 AA	20140904	LSPB	+	published / reissued	
US2014248025 AA	20141015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015129203 AA	20150514	LSPB	+	published / reissued	
US2015129203 AA	20150715	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ENERGY, UNITED STATES DEPARTMENT OF, DISTRICT OF C OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:FORO ENERGY, INC.; REEL/FRAME:036109/0947 EFFECTIVE DATE : 20150323
US2015129203 AA	20171207	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2015129203 AA	20171208	LSES	NFA1	Non Final Action Mailed	
US2015129203 AA	20180421	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2015129203 AA	20180423	LSES	+NAM1	Notice of	

				Allowance Mailed -- Application Received in Office of Publications	
US2015129203 AA	20180428	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2015129203 AA	20180430	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015129203 AA	20180717	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2015129203 AA	20180801	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015307174 AA	20151029	LSPB	+	published / reissued	
US2015307174 AA	20151214	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; RINZLER, CHARLES C.; REEL/FRAME:037283/0491 EFFECTIVE DATE : 20120706
US2015307174 AA	20160413	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015308194 AA	20151029	LSPB	+	published / reissued	
US2015308194 AA	20150220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOXLEY, JOEL F., MR.; LAND, MARK S., MR.; RINZLER, CHARLES C., MR.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:034999/0661
US2015308194 AA	20170505	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2015321290 AA	20151112	LSPB	+	published / reissued	
US2015321290 AA	20161003	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S; GRUBB, DARYL L; DE WITT, RONALD A; AND OTHERS; SIGNING DATES FROM 20121003 TO 20121005; REEL/FRAME:039924/0987
US2015321290 AA	20161026	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015322738 AA	20151112	LSPB	+	published / reissued	
US2015322738 AA	20160128	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; AND OTHERS; REEL/FRAME:037614/0307 EFFECTIVE DATE : 20090818
US2015322738 AA	20161116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2016017661 AA	20160121	LSPB	+	published / reissued	
US2016017661 AA	20161214	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016084008 AA	20160324	LSPB	+	published / reissued	
US2016084008 AA	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O.; KOBICK, YESHAYA; MOXLEY, JOEL F.; AND OTHERS; SIGNING DATES FROM 20160210 TO 20160401; REEL/FRAME:038176/0033
US2016084008 AA	20170322	LSES	NFA1	Non Final Action Mailed	
US2016084008 AA	20170906	LSES	NFA1	Non Final Action Mailed	
US2016084008 AA	20190116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016090790 AA	20160331	LSPB	+	published / reissued	
US2016090790 AA	20190814	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US2016186497 AA	20160630	LSPB	+	published / reissued	
US2016186497 AA	20170606	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016186497 AA	20170901	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016186497 AA	20170920	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016186524 AA	20160630	LSPB	+	published / reissued	
US2016186524 AA	20160805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O; ZEDIKER, MARK S; SIGNING DATES FROM 20160802 TO 20160803; REEL/FRAME:039359/0170
US2016186524 AA	20170616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEVRON, U.S.A. INC.,; REEL/FRAME:042734/0962 EFFECTIVE DATE : 20170117
US2016186524 AA	20170927	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016186524 AA	20171002	LSES	NFA1	Non Final Action Mailed	
US2016186524 AA	20180402	LSES	NFA1	Non Final Action Mailed	
US2016186524 AA	20190611	LSES	NFA1	Non Final Action Mailed	
US2016186524 AA	20200128	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016187588 AA	20160630	LSPB	+	published / reissued	

US2016187588 AA	20160304	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:NORTON, RYAN J; MCKAY, RYAN P; FRAZE, JASON D; AND OTHERS; SIGNING DATES FROM 20140909 TO 20140915; REEL/FRAME:037897/0747	
US2016187588 AA	20170418	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action		
US2016221125 AA	20160804	LSPB	+	published / reissued		
US2016221125 AA	20161228	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US2016222763 AA	20160804	LSPB	+	published / reissued		
US2016222763 AA	20170807	LSES	NFA1	Non Final Action Mailed		
US2016222763 AA	20180322	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed		
US2016222763 AA	20180323	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		
US2016222763 AA	20180403	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid		
US2016222763 AA	20180405	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		
US2016222763 AA	20180627	LSFE	+PPR1	Publications -- Issue Fee Payment Received		
US2016222763 AA	20180628	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2016222763 AA	20180711	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US2016251940 AA	20160901	LSPB	+	published / reissued		
US2016251940 AA	20171220	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed		
US2016251940 AA	20171227	LSES	NFA1	Non Final Action Mailed		
US2016251940 AA	20190103	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2016251940 AA	20190508	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US2016299304 AA	20161013	LSPB	+	published / reissued		
US2016299304 AA	20161214	LSES	NFA1	Non Final Action Mailed		
US2016299304 AA	20180222	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		

US2016299304 AA	20180306	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC, COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S; RINZLER, CHARLES C; FAIRCLOTH, BRIAN O; AND OTHERS; REEL/FRAME:045117/0305 EFFECTIVE DATE : 20100504
US2016299304 AA	20180530	LSGT	PAT1	Patented Case	
US2016299304 AA	20180530	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016341906 AA	20161124	LSPB	+	published / reissued	
US2016341906 AA	20170731	LSES	NFA1	Non Final Action Mailed	
US2016341906 AA	20180325	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2016341906 AA	20180326	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016341906 AA	20180627	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016341906 AA	20180628	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016341906 AA	20180718	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017016299 AA	20170119	LSPB	+	published / reissued	
US2017016299 AA	20161004	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O; GRUBB, DARYL; MARSHALL, SCOTT A; AND OTHERS; SIGNING DATES FROM 20160810 TO 20160829; REEL/FRAME:039929/0822
US2017016299 AA	20190208	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017016299 AA	20190513	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017016299 AA	20190612	LSGT	PAT1	Patented Case	
US2017016299 AA	20190612	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017059854 AA	20170302	LSPB	+	published / reissued	
US2017059854 AA	20160805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FRAZE, JASON D; FAIRCLOTH, BRIAN O; ZEDIKER, MARK S; SIGNING DATES FROM 20160802 TO 20160803; REEL/FRAME:039359/0122
US2017059854 AA	20170818	LSES	NFA1	Non Final Action Mailed	
US2017059854 AA	20171228	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	

US2017059854 AA	20180104	LSES	NFA1	Non Final Action Mailed	
US2017059854 AA	20180730	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2017183913 A9	20170712	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017191314 AA	20170706	LSPB	+	published / reissued	
US2017191314 AA	20170530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O; ZEDIKER, MARK S; LAND, MARK S; AND OTHERS; SIGNING DATES FROM 20170424 TO 20170523; REEL/FRAME:042525/0352
US2017191314 AA	20180605	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2017191314 AA	20180606	LSES	NFA1	Non Final Action Mailed	
US2017191314 AA	20200407	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2017214213 AA	20170727	LSPB	+	published / reissued	
US2017214213 AA	20140813	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; RINZLER, CHARLES C.; SIGNING DATES FROM 20140210 TO 20140812; REEL/FRAME:033525/0747
US2017214213 AA	20170907	LSES	NFA1	Non Final Action Mailed	
US2017214213 AA	20180130	LSES	NFA1	Non Final Action Mailed	
US2017214213 AA	20180904	LSES	NFA1	Non Final Action Mailed	
US2017214213 AA	20191125	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017214213 AA	20200115	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017214213 AA	20200317	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017252858 AA	20170907	LSPB	+	published / reissued	
US2017252858 AA	20170628	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; GRUBB, DARYL L.; DEWITT, RONALD A.; AND OTHERS; SIGNING DATES FROM 20121003 TO 20121005; REEL/FRAME:043019/0860

US2017252858 AA	20190329	LSES	NFA1	Non Final Action Mailed	
US2017252858 AA	20190705	LSES	NFA1	Non Final Action Mailed	
US2017266760 AA	20170921	LSPB	+	published / reissued	
US2017266760 AA	20191127	LSES	NFA1	Non Final Action Mailed	
US2017321486 AA	20171109	LSPB	+	published / reissued	
US2017321486 AA	20181219	LSES	NFA1	Non Final Action Mailed	
US2017321486 AA	20190926	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : EMPLOYEE AGREEMENT; ASSIGNOR: SCHROIT, SAM; REEL/FRA:050494/0520 EFFECTIVE DATE : 20100322
US2017321486 AA	20190926	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LINYAEV, EUGENE J; ZEDIKER, MARK S; GRUBB, DARYL L; AND OTHERS; SIGNING DATES FROM 20150120 TO 20150602; REEL/FRA:050494/0472
US2017321486 AA	20200127	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017321486 AA	20200429	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018045024 AA	20180215	LSPB	+	published / reissued	
US2018045024 AA	20181212	LSES	NFA1	Non Final Action Mailed	
US2018045024 AA	20190826	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: DEUTCH, PAUL D.; MARSHALL, SCOTT A.; GRUB, DARYL L.; AND OTHERS; SIGNING DATES FROM 20140812 TO 20140813; REEL/FRA:050173/0353
US2018045024 AA	20190830	LSES	ADV1	Advisory Action Mailed	
US2018045024 AA	20190925	LSAL	NAF1	Notice of Appeal Filed	
US2018045024 AA	20190925	LSAL	STCV	INFORMATION ON STATUS: APPEAL PROCEDURE	TEXT : NOTICE OF APPEAL FILED
US2018045024 AA	20200302	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018045895 AA	20180215	LSPB	+	published / reissued	
US2018045895 AA	20181207	LSES	NFA1	Non Final Action Mailed	
US2018045895 AA	20190716	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018045895 AA	20190927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

OWNER : FORO ENERGY, INC., TEXAS
 OLDPARTY : ASSIGNMENT OF
 ASSIGNORS INTEREST;
 ASSIGNORS:LEE, IAN; FAIRCLOTH,
 BRIAN O; KUZNETSOV, ANDREY;
 SIGNING DATES FROM 20190808 TO
 20190816; REEL/FRAME:050510/0897

US2018045895 AA	20191030	LSGT	PAT1	Patented Case	
US2018045895 AA	20191030	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018163477 AA	20180614	LSPB	+	published / reissued	
US2018163477 AA	20190204	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018163477 AA	20190313	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2018163477 AA	20190322	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018163477 AA	20190529	LSGT	PAT1	Patented Case	
US2018163477 AA	20190529	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018328150 AA	20181115	LSPB	+	published / reissued	
US2018328150 AA	20190328	LSES	NFA1	Non Final Action Mailed	
US2018328150 AA	20190702	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC, COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEWITT, RONALD A; ZEDIKER, MARK S; FAIRCLOTH, BRIAN O; AND OTHERS; SIGNING DATES FROM 20111107 TO 20111202; REEL/FRAME:049659/0177
US2018328150 AA	20200115	LSES	NFA1	Non Final Action Mailed	
US2019040726 AA	20190207	LSPB	+	published / reissued	
US2019040726 AA	20191106	LSES	NFA1	Non Final Action Mailed	
US2019178036 AA	20190613	LSPB	+	published / reissued	
US2019178036 AA	20190411	LSES	NFA1	Non Final Action Mailed	
US2019178036 AA	20200505	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2019240770 AA	20190808	LSPB	+	published / reissued	
US2019309576 AA	20191010	LSPB	+	published / reissued	
US2019309576 AA	20191202	LSES	NFA1	Non Final Action Mailed	
US2019383120 AA	20191219	LSPB	+	published / reissued	
US2019383120 AA	20191030	LSES	NFA1	Non Final Action Mailed	
US2020011145 AA	20200109	LSPB	+	published / reissued	
US8424617 BB	20130423	LSGT	+	granted / extensions (spc,	

cpc, pte)					
US8424617 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.,COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O.; ZEDIKER, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023131/0563
US8424617 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O.; ZEDIKER, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023131/0563
US8424617 BB	20130403	LSGT	PAT1	Patented Case	
US8424617 BB	20130709	LSRE	CC	CERTIFICATE OF CORRECTION	
US8424617 BB	20141230	LSRE	CC	CERTIFICATE OF CORRECTION	
US8424617 BB	20161024	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8424617 BB	20300303	PEXP		Calculated Patent Term Expiry (PTA 196 days)	
US8511401 BB	20130820	LSGT	+	granted / extensions (spc, cpc, pte)	
US8511401 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.,COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023131/0870
US8511401 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023131/0870
US8511401 BB	20130731	LSGT	PAT1	Patented Case	
US8511401 BB	20170220	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8511401 BB	20310310	PEXP		Calculated Patent Term Expiry (PTA 568 days)	
US8571368 BB	20131029	LSGT	+	granted / extensions (spc, cpc, pte)	
US8571368 BB	20100727	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; ZEDIKER, MARK S.; REEL/FRAME:024843/0221 EFFECTIVE DATE : 20100721
US8571368 BB	20131009	LSGT	PAT1	Patented Case	
US8571368 BB	20140311	LSRE	CC	CERTIFICATE OF CORRECTION	
US8571368 BB	20170501	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US8571368 BB	20301024	PEXP		Calculated Patent Term Expiry (PTA 95 days)	
US8627901 BA	20140114	LSGT	+	granted / extensions (spc, cpc, pte)	
US8627901 BA	20101123	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:UNDERWOOD, LANCE D.; NORTON, RYAN J.; MCKAY, RYAN P.; AND OTHERS; REEL/FRAME:025308/0653 EFFECTIVE DATE : 20101116
US8627901 BA	20131224	LSGT	PAT1	Patented Case	
US8627901 BA	20131224	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8627901 BA	20170714	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8627901 BA	20311203	PEXP		Calculated Patent Term Expiry (PTA 428 days)	
US8636085 BB	20140128	LSGT	+	granted / extensions (spc, cpc, pte)	
US8636085 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.,COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; AND OTHERS; REEL/FRAME:023131/0725 EFFECTIVE DATE : 20090818
US8636085 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; AND OTHERS; REEL/FRAME:023131/0725 EFFECTIVE DATE : 20090818
US8636085 BB	20140108	LSGT	PAT1	Patented Case	
US8636085 BB	20170728	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8636085 BB	20320117	PEXP		Calculated Patent Term Expiry (PTA 881 days)	
US8662160 BB	20140304	LSGT	+	granted / extensions (spc, cpc, pte)	
US8662160 BB	20140212	LSGT	PAT1	Patented Case	
US8662160 BB	20140715	LSRE	CC	CERTIFICATE OF CORRECTION	
US8662160 BB	20170831	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8662160 BB	20320731	PEXP		Calculated Patent Term Expiry (PTA 350 days)	
US8684088 BB	20140401	LSGT	+	granted / extensions (spc, cpc, pte)	
US8684088 BB	20110826	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

					ASSIGNORS:ZEDIKER, MARK S., MR.; BERGERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026815/0380
US8684088 BB	20110826	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S., MR.; BERGERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026815/0380
US8684088 BB	20140312	LSGT	PAT1	Patented Case	
US8684088 BB	20170616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEVRON, U.S.A. INC.,; REEL/FRAME:042734/0962 EFFECTIVE DATE : 20170117
US8684088 BB	20170831	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US8684088 BB	20170831	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8684088 BB	20310404	PEXP		Calculated Patent Term Expiry (PTA 39 days)	
US8701794 BB	20140422	LSGT	+	granted / extensions (spc, cpc, pte)	
US8701794 BB	20140402	LSGT	PAT1	Patented Case	
US8701794 BB	20160824	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S; RINZLER, CHARLES C; FAIRCLOTH, BRIAN O; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:039520/0954
US8701794 BB	20171010	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8701794 BB	20330313	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8720575 BB	20140513	LSGT	+	granted / extensions (spc, cpc, pte)	
US8720575 BB	20140423	LSGT	PAT1	Patented Case	
US8720575 BB	20170616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEVRON, U.S.A. INC.,; REEL/FRAME:042734/0962 EFFECTIVE DATE : 20170117
US8720575 BB	20171010	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US8720575 BB	20171010	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8720575 BB	20330501	PEXP		Calculated Patent Term Expiry (PTA 37 days)	
US8757292 BB	20140624	LSGT	+	granted / extensions (spc, cpc, pte)	
US8757292 BB	20140604	LSGT	PAT1	Patented Case	

US8757292 BB	20171110	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8757292 BB	20330313	PEXP		Calculated Patent Term Expiry	
US8783360 BB	20140722	LSGT	+	granted / extensions (spc, cpc, pte)	
US8783360 BB	20110826	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S., MR.; BERNERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026812/0890
US8783360 BB	20110826	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S., MR.; BERNERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026812/0890
US8783360 BB	20140702	LSGT	PAT1	Patented Case	
US8783360 BB	20170616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEVRON, U.S.A. INC.,; REEL/FRAME:042734/0962 EFFECTIVE DATE : 20170117
US8783360 BB	20171224	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US8783360 BB	20180110	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8783360 BB	20321019	PEXP		Calculated Patent Term Expiry (PTA 603 days)	
US8783361 BB	20140722	LSGT	+	granted / extensions (spc, cpc, pte)	
US8783361 BB	20110825	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S., MR.; BERGERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026806/0781
US8783361 BB	20110825	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S., MR.; BERGERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026806/0781
US8783361 BB	20110913	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE OMISSION OF PAUL D. DEUTCH AS AN ASSIGNOR TO PREVIOUSLY MAILED NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT PREVIOUSLY RECORDED ON REEL 026806 FRAME 0781. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT OF U.S. APPLN. 13/034,175 TO CHEVRON U.S.A. INC. AND FORO ENERGY INC.; ASSIGNORS:ZEDIKER, MARK S., MR.; BERGERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS;

					SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026893/0644
US8783361 BB	20110913	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHEVRON U.S.A. INC., TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE OMISSION OF PAUL D. DEUTCH AS AN ASSIGNOR TO PREVIOUSLY MAILED NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT PREVIOUSLY RECORDED ON REEL 026806 FRAME 0781. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT OF U.S. APPLN. 13/034,175 TO CHEVRON U.S.A. INC. AND FORO ENERGY INC.; ASSIGNORS:ZEDIKER, MARK S., MR.; BERGERON, HENRY A., MR.; CLARK, PHILIP V., MR.; AND OTHERS; SIGNING DATES FROM 20110713 TO 20110817; REEL/FRAME:026893/0644
US8783361 BB	20140702	LSGT	PAT1	Patented Case	
US8783361 BB	20170616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHEVRON, U.S.A. INC.,; REEL/FRAME:042734/0962 EFFECTIVE DATE : 20170117
US8783361 BB	20171224	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US8783361 BB	20180110	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8783361 BB	20321021	PEXP		Calculated Patent Term Expiry (PTA 605 days)	
US8820434 BB	20140902	LSGT	+	granted / extensions (spc, cpc, pte)	
US8820434 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.,COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; LAND, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023131/0922
US8820434 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; LAND, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023131/0922
US8820434 BB	20140813	LSGT	PAT1	Patented Case	
US8820434 BB	20180221	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8820434 BB	20320720	PEXP		Calculated Patent Term Expiry (PTA 1066 days)	
US8826973 BB	20140909	LSGT	+	granted / extensions (spc, cpc, pte)	
US8826973 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.,COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOXLEY, JOEL F.; LAND, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023640/0326

US8826973 BB	20090821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOXLEY, JOEL F.; LAND, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:023640/0326
US8826973 BB	20140820	LSGT	PAT1	Patented Case	
US8826973 BB	20180221	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8826973 BB	20310726	PEXP		Calculated Patent Term Expiry (PTA 706 days)	
US8869914 BB	20141028	LSGT	+	granted / extensions (spc, cpc, pte)	
US8869914 BB	20141008	LSGT	PAT1	Patented Case	
US8869914 BB	20180314	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8869914 BB	20330313	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8879876 BB	20141104	LSGT	+	granted / extensions (spc, cpc, pte)	
US8879876 BB	20140728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; ZEDIKER, MARK S.; REEL/FRAME:033400/0559 EFFECTIVE DATE : 20100721
US8879876 BB	20141015	LSGT	PAT1	Patented Case	
US8879876 BB	20180424	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8879876 BB	20331018	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8936108 BB	20150120	LSGT	+	granted / extensions (spc, cpc, pte)	
US8936108 BB	20141230	LSGT	PAT1	Patented Case	
US8936108 BB	20180628	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8936108 BB	20330313	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8997894 BB	20150407	LSGT	+	granted / extensions (spc, cpc, pte)	
US8997894 BB	20150318	LSGT	PAT1	Patented Case	
US8997894 BB	20180912	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8997894 BB	20330226	PEXP		Calculated Patent Term Expiry	
US9027668 BB	20150512	LSGT	+	granted / extensions (spc, cpc, pte)	
US9027668 BB	20120621	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; MAKKI, SIAMAK; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20120517 TO 20120614; REEL/FRAME:028419/0715
US9027668 BB	20150422	LSGT	PAT1	Patented Case	
US9027668 BB	20181017	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9027668 BB	20330310	PEXP		Calculated Patent Term Expiry (PTA 381 days)	
US9074422 BB	20150707	LSGT	+	granted / extensions (spc, cpc, pte)	
US9074422 BB	20120710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GRUBB, DARYL L.; FAIRCLOTH, BRIAN O.; ZEDIKER, MARK S.; SIGNING DATES FROM 20120516 TO 20120517; REEL/FRAME:028523/0749
US9074422 BB	20150617	LSGT	PAT1	Patented Case	
US9074422 BB	20151009	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GRUBB, DARYL L.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; SIGNING DATES FROM 20120516 TO 20120517; REEL/FRAME:036769/0244
US9074422 BB	20181210	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9074422 BB	20330716	PEXP		Calculated Patent Term Expiry (PTA 509 days)	
US9080425 BB	20150714	LSGT	+	granted / extensions (spc, cpc, pte)	
US9080425 BB	20120709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC.,, COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; JONES-ALBERTUS, REBECCA; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20120706 TO 20120708; REEL/FRAME:028515/0625
US9080425 BB	20150624	LSGT	PAT1	Patented Case	
US9080425 BB	20151002	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; JONES-ALBERTUS, REBECCA; FAIRCLOTH, BRIAN O.; AND OTHERS; REEL/FRAME:036715/0504 EFFECTIVE DATE : 20120706
US9080425 BB	20181217	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9080425 BB	20330119	PEXP		Calculated Patent Term Expiry (PTA 375 days)	
US9089928 BB	20150728	LSGT	+	granted / extensions (spc, cpc, pte)	
US9089928 BB	20121016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF

ASSIGNORS INTEREST;
 ASSIGNORS:ZEDIKER, MARK S.;
 GRUBB, DARYL L.; DE WITT, RONALD
 A.; AND OTHERS; SIGNING DATES
 FROM 20121003 TO 20121005;
 REEL/FRAME:029135/0702

US9089928 BB	20150708	LSGT	PAT1	Patented Case	
US9089928 BB	20181218	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9089928 BB	20330412	PEXP		Calculated Patent Term Expiry (PTA 253 days)	
US9138786 BB	20150922	LSGT	+	granted / extensions (spc, cpc, pte)	
US9138786 BB	20120629	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MCKAY, RYAN P.; RINZLER, CHARLES C.; MOXLEY, JOEL F.; AND OTHERS; SIGNING DATES FROM 20120516 TO 20120614; REEL/FRAME:028467/0757
US9138786 BB	20150902	LSGT	PAT1	Patented Case	
US9138786 BB	20190222	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9138786 BB	20321206	PEXP		Calculated Patent Term Expiry (PTA 304 days)	
US9242309 BB	20160126	LSGT	+	granted / extensions (spc, cpc, pte)	
US9242309 BB	20151027	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9242309 BB	20151216	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US9242309 BB	20151222	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9242309 BB	20160106	LSGT	PAT1	Patented Case	
US9242309 BB	20190626	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9242309 BB	20331117	PEXP		Calculated Patent Term Expiry (PTA 275 days)	
US9244235 BB	20160126	LSGT	+	granted / extensions (spc, cpc, pte)	
US9244235 BB	20151029	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9244235 BB	20151113	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US9244235 BB	20151218	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9244235 BB	20160106	LSGT	PAT1	Patented Case	
US9244235 BB	20190626	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US9244235 BB	20331205	PEXP		Calculated Patent Term Expiry (PTA 279 days)	
US9267330 BB	20160223	LSGT	+	granted / extensions (spc, cpc, pte)	
US9267330 BB	20120716	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; GRAY, WILLIAM C.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20120516 TO 20120517; REEL/FRAME:028554/0242
US9267330 BB	20151221	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9267330 BB	20160203	LSGT	PAT1	Patented Case	
US9267330 BB	20190814	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9267330 BB	20320810	PEXP		Calculated Patent Term Expiry (PTA 169 days)	
US9284783 BA	20160315	LSGT	+	granted / extensions (spc, cpc, pte)	
US9284783 BA	20140815	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O.; ZEDIKER, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:033542/0310
US9284783 BA	20160224	LSGT	PAT1	Patented Case	
US9284783 BA	20160224	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9284783 BA	20331105	PEXP		Calculated Patent Term Expiry (PTA 222 days)	
US9327810 BB	20160503	LSGT	+	granted / extensions (spc, cpc, pte)	
US9327810 BB	20150824	LSES	NFA1	Non Final Action Mailed	
US9327810 BB	20160413	LSGT	PAT1	Patented Case	
US9327810 BB	20191008	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9327810 BB	20350702	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9347271 BB	20160524	LSGT	+	granted / extensions (spc, cpc, pte)	
US9347271 BB	20100507	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; RINZLER, CHARLES C.; FAIRCLOTH, BRIAN O.; AND OTHERS; REEL/FRAME:024384/0594 EFFECTIVE DATE : 20100504

US9347271 BB	20160420	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9347271 BB	20160504	LSGT	PAT1	Patented Case	
US9347271 BB	20191015	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9347271 BB	20311207	PEXP		Calculated Patent Term Expiry (PTA 659 days)	
US9360631 BB	20160607	LSGT	+	granted / extensions (spc, cpc, pte)	
US9360631 BB	20120713	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FRAZE, JASON D.; FAIRCLOTH, BRIAN O.; ZEDIKER, MARK S.; SIGNING DATES FROM 20120516 TO 20120517; REEL/FRAME:028542/0338
US9360631 BB	20151127	LSES	NFA1	Non Final Action Mailed	
US9360631 BB	20160518	LSGT	PAT1	Patented Case	
US9360631 BB	20191107	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9360631 BB	20350301	PEXP		Calculated Patent Term Expiry (PTA 1102 days)	
US9360643 BB	20160607	LSGT	+	granted / extensions (spc, cpc, pte)	
US9360643 BB	20120926	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RINZLER, CHARLES C.; GRAY, WILLIAM C.; FRAZE, JASON D.; AND OTHERS; REEL/FRAME:029029/0609 EFFECTIVE DATE : 20120919
US9360643 BB	20150925	LSES	NFA1	Non Final Action Mailed	
US9360643 BB	20160518	LSGT	PAT1	Patented Case	
US9360643 BB	20191107	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9360643 BB	20330509	PEXP		Calculated Patent Term Expiry (PTA 342 days)	
US9399269 BB	20160726	LSGT	+	granted / extensions (spc, cpc, pte)	
US9399269 BB	20160705	LSGT	PAT1	Patented Case	
US9399269 BB	20191216	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9399269 BB	20350111	PEXP		Calculated Patent Term Expiry (PTA 303 days)	
US9492885 BB	20161115	LSGT	+	granted / extensions (spc, cpc, pte)	
US9492885 BB	20161026	LSGT	PAT1	Patented Case	
US9492885 BB	20200423	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9492885 BB	20350720	PEXP		Calculated Patent Term Expiry	
US9512679 BB	20161206	LSGT	+	granted / extensions (spc,	

cpc, pte)					
US9512679 BB	20151207	LSSES	NFA1	Non Final Action Mailed	
US9512679 BB	20161116	LSGT	PAT1	Patented Case	
US9512679 BB	20200427	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9512679 BB	20340815	PEXP		Calculated Patent Term Expiry (PTA 246 days)	
US9534447 BB	20170103	LSGT	+	granted / extensions (spc, cpc, pte)	
US9534447 BB	20151202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZEDIKER, MARK S.; LAND, MARK S.; RINZLER, CHARLES C.; AND OTHERS; SIGNING DATES FROM 20090818 TO 20090819; REEL/FRAME:037193/0679
US9534447 BB	20161214	LSGT	PAT1	Patented Case	
US9534447 BB	20350130	PEXP		Calculated Patent Term Expiry (PTA 196 days)	
US9545692 BB	20170117	LSGT	+	granted / extensions (spc, cpc, pte)	
US9545692 BB	20140814	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FAIRCLOTH, BRIAN O.; ZEDIKER, MARK S.; KOLACHALAM, SHARATH K.; AND OTHERS; SIGNING DATES FROM 20140203 TO 20140207; REEL/FRAME:033536/0573
US9545692 BB	20161228	LSGT	PAT1	Patented Case	
US9545692 BB	20350818	PEXP		Calculated Patent Term Expiry (PTA 642 days)	
US9562395 BB	20170207	LSGT	+	granted / extensions (spc, cpc, pte)	
US9562395 BB	20120625	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY INC., COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GRUBB, DARYL L.; KOLACHALAM, SHARATH K.; FAIRCLOTH, BRIAN O.; AND OTHERS; SIGNING DATES FROM 20120516 TO 20120611; REEL/FRAME:028433/0832
US9562395 BB	20170118	LSGT	PAT1	Patented Case	
US9562395 BB	20341231	PEXP		Calculated Patent Term Expiry (PTA 1042 days)	
US9664012 BB	20170530	LSGT	+	granted / extensions (spc, cpc, pte)	
US9664012 BB	20170510	LSGT	PAT1	Patented Case	
US9664012 BB	20350223	PEXP		Calculated Patent Term Expiry (PTA 437 days)	
US9669492 BB	20170606	LSGT	+	granted / extensions (spc, cpc, pte)	
US9669492 BB	20170517	LSGT	PAT1	Patented Case	
US9669492 BB	20360311	PEXP		Calculated	

				Patent Term Expiry (PTA 940 days)	
US9719302 BB	20170801	LSGT	+	granted / extensions (spc, cpc, pte)	
US9719302 BB	20151123	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9719302 BB	20170712	LSGT	PAT1	Patented Case	
US9719302 BB	20340416	PEXP		Calculated Patent Term Expiry (PTA 411 days)	
US9784037 BB	20171010	LSGT	+	granted / extensions (spc, cpc, pte)	
US9784037 BB	20151014	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FORO ENERGY, INC., COLORADO OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE APPLICATION SERIAL 13/403,287 PREVIOUSLY RECORDED ON REEL 036769 FRAME 0244. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNORS:GRUBB, DARYL L.; ZEDIKER, MARK S.; FAIRCLOTH, BRIAN O.; SIGNING DATES FROM 20120516 TO 20120517; REEL/FRAME:036955/0440
US9784037 BB	20170920	LSGT	PAT1	Patented Case	
US9784037 BB	20350622	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9845652 BB	20171219	LSGT	+	granted / extensions (spc, cpc, pte)	
US9845652 BB	20171129	LSGT	PAT1	Patented Case	
US9845652 BB	20350402	PEXP		Calculated Patent Term Expiry (PTA 580 days and a terminal disclaimer has been filed)	
WO10096086 A1	20100826	LSPB	+	published / reissued	
WO10096086 A1	20090819	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200980141304.7 COUNTRY OF REF DOCUMENT : CN
WO10096086 A1	20110210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009340454 COUNTRY OF REF DOCUMENT : AU
WO10096086 A1	20110216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2734492 COUNTRY OF REF DOCUMENT : CA
WO10096086 A1	20110218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009840554 COUNTRY OF REF DOCUMENT : EP
WO10096086 A1	20110218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2011/001908 COUNTRY OF REF DOCUMENT : MX
WO10096086 A1	20110221	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2011523959 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A

					DESIGNATED STATE(S) :
WO10096086 A1	20110222	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO10096086 A1	20110303	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2009340454 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20090819 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO10096086 A1	20110316	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1983/DELNP/2011 COUNTRY OF REF DOCUMENT : IN
WO10096086 A1	20110321	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011110388 COUNTRY OF REF DOCUMENT : RU
WO10096086 A1	20151124	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0918403 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110221
WO10144160 A1	20101216	LSPB	+	published / reissued	
WO10144160 A1	20110817	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011551172 COUNTRY OF REF DOCUMENT : JP
WO10144160 A1	20110916	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010786516 COUNTRY OF REF DOCUMENT : EP
WO10144160 A1	20110919	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011138270 COUNTRY OF REF DOCUMENT : RU
WO10144160 A1	20120816	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12012436 A2	20120126	LSPB	+	published / reissued	
WO12012436 A3	20130114	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2805437 COUNTRY OF REF DOCUMENT : CA
WO12012436 A3	20130121	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12012436 A3	20130121	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011810287 COUNTRY OF REF DOCUMENT : EP
WO12012436 A3	20160607	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 112013001512 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130121
WO12024285 A1	20120223	LSPB	+	published / reissued	
WO12024285 A1	20130212	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2808214 COUNTRY OF REF DOCUMENT : CA
WO12024285 A1	20130214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011818657 COUNTRY OF REF DOCUMENT : EP
WO12024285 A1	20130218	LSNE	NENP	NON-ENTRY	REF COUNTRY CODE : DE

				INTO THE NATIONAL PHASE	
WO12031009 A1	20120308	LSPB	+	published / reissued	
WO12031009 A1	20130228	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12031009 A1	20130228	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011822594 COUNTRY OF REF DOCUMENT : EP
WO12096966 A2	20120719	LSPB	+	published / reissued	
WO12096966 A3	20130710	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012734537 COUNTRY OF REF DOCUMENT : EP
WO12096966 A3	20130711	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12116148 A1	20120830	LSPB	+	published / reissued	
WO12116148 A1	20130821	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012749304 COUNTRY OF REF DOCUMENT : EP
WO12116148 A1	20130826	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12116148 A1	20161011	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 112013021478 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130822
WO12116153 A1	20120830	LSPB	+	published / reissued	
WO12116153 A1	20130826	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12116153 A1	20140319	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12749831 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO12116155 A1	20120830	LSPB	+	published / reissued	
WO12116155 A1	20130826	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12116155 A1	20140319	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12750243 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO12116284 A1	20120830	LSPB	+	published / reissued	
WO12116284 A1	20130821	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2827979 COUNTRY OF REF DOCUMENT : CA
WO12116284 A1	20130821	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012749039 COUNTRY OF REF DOCUMENT : EP
WO12116284 A1	20130826	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12116284 A1	20130912	LSNP	ENP	ENTRY INTO THE NATIONAL	REF DOCUMENT NUMBER : 2012222154

				PHASE	COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120224 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12116284 A1	20161011	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 112013021480 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130822
WO12161789 A1	20121129	LSPB	+	published / reissued	
WO12161789 A1	20130821	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2827958 COUNTRY OF REF DOCUMENT : CA
WO12161789 A1	20130821	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012789937 COUNTRY OF REF DOCUMENT : EP
WO12161789 A1	20130826	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12161789 A1	20130912	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2012259435 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120224 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12161797 A1	20121129	LSPB	+	published / reissued	
WO12161797 A1	20130821	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2827963 COUNTRY OF REF DOCUMENT : CA
WO12161797 A1	20130826	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12161797 A1	20130831	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012789633 COUNTRY OF REF DOCUMENT : EP
WO12161797 A1	20130912	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2012259443 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120224 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12167102 A1	20121206	LSPB	+	published / reissued	
WO12167102 A1	20131203	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO13019959 A2	20130207	LSPB	+	published / reissued	
WO13019959 A3	20140203	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO13019959 A3	20140221	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012820743 COUNTRY OF REF DOCUMENT : EP
WO13130302 A1	20130906	LSPB	+	published / reissued	
WO13130302 A1	20140901	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO13130302 A1	20140922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013754543 COUNTRY OF REF DOCUMENT : EP

WO14036430 A2	20140306	LSPB	+	published / reissued	
WO14036430 A3	20170704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 112015004458 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20150227
WO14078663 A2	20140522	LSPB	+	published / reissued	
WO14078663 A3	20150513	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2891500 COUNTRY OF REF DOCUMENT : CA
WO14078663 A3	20151209	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 13855812 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO14089544 A2	20140612	LSPB	+	published / reissued	
WO14089544 A3	20150706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013860660 COUNTRY OF REF DOCUMENT : EP
WO14144591 A2	20140918	LSPB	+	published / reissued	
WO14144591 A3	20150914	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2906738 COUNTRY OF REF DOCUMENT : CA
WO14144591 A3	20151008	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2014228980 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20140314 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14144591 A3	20160406	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 14764013 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO14144887 A2	20140918	LSPB	+	published / reissued	
WO14144887 A3	20160406	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 14763264 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO14149114 A2	20140925	LSPB	+	published / reissued	
WO14149114 A3	20160120	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 13879091 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO18075799 A1	20180426	LSPB	+	published / reissued	
WO18075799 A1	20190424	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO18075799 A1	20191113	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 17861440 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: NATURAL TURF, MEANS AND PROCESS FOR MANUFACTURING SUCH A NATURAL TURF

Abstract: 324 Mr Edmond-Pierre PICARD _____ Natural turf, means and process for manufacturing such a natural turf. ABSTRACT The invention relates to a natural turf intended to be used for sports and comprising a layer (1) of leaves and exposed parts of grasses or other natural turf plants and at least one substrate layer (3) in which these plants are rooted. The substrate layer (3) comprises a first part of particles (4) having the particle size of sand, between 80 mm and 3 mm, and means formed in order to be able to ensure that the water content of the turf is kept at a constant level. The invention also relates to means and to a process for manufacturing such a natural turf, to a surface comprising such a turf, to a sports shoe suitable for such a surface, to a sports system comprising such a turf or to a sports system comprising such a turf and such a shoe and also to a protocol for evaluating such a surface or sports system comprising such a surface and such a shoe. Figure 1

Classifications:

International (IPC 8-9): A01G1/00 A01G9/02 A43B3/00 A43B5/02 E01C13/00 E01C13/02 E01C13/08 G01M99/00

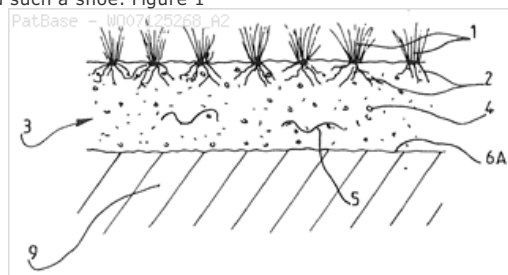
G01N19/00 (Advanced/Invention);

A43B3/00 A43B5/02 (Advanced/Non-invention);

A01G1/00 A01G9/02 E01C13/00 G01N19/00 (Core/Invention)

CPC: A01G9/033 A01G20/20 E01C13/083

European: A01G1/00C A43B5/02 E01C13/08B



Family:

Publication number	Publication date	Application number	Application date
EP2013418 A2	20090114	EP20070765986	20070502
EP2013418 B1	20180711	EP20070765986	20070502
FR2900537 A1	20071109	FR20060051564	20060502
FR2901287 A1	20071123	FR20070054822	20070502
WO07125268 A2	20071108	WO2007FR51203	20070502
WO07125268 A3	20080103	WO2007FR51203	20070502

Priority:

FR20060051564 20060502 FR20070054822 20070502 WO2007FR51203 20070502

Probable Assignee: DENDRO CONCEPT

Assignee(s): (std): PICARD EDMOND PIERRE ; DENDRO CONCEPT

Assignee(s): EDMOND PIERRE PICARD

Inventor(s): (std): PICARD EDMOND PIERRE

Inventor(s): EDMOND PIERRE PICARD

Agent(s): THINAT MICHEL; LAVOIX; CABINET LAVOIX

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 LI 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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
EP2013418 A2	20090114	LSPB	+	published / reissued	
EP2013418 A2	20090114	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081110
EP2013418 A2	20160601	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : DENDRO CONCEPT
EP2013418 A2	20161214	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20161114
EP2013418 A2	20180207	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180112
EP2013418 B1	20180711	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2013418 B1	20180711	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP2013418 B1	20180713	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2013418 B1	20180715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF

					REF DOCUMENT NUMBER : 1017004 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180715
EP2013418 B1	20180802	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007055342 COUNTRY OF REF DOCUMENT : DE
EP2013418 B1	20180808	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP2013418 B1	20181126	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2013418 B1	20181215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1017004 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180711
EP2013418 B1	20181231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180711
EP2013418 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180711
EP2013418 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180711
EP2013418 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20181111
EP2013418 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20181011
EP2013418 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180711
EP2013418 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20181012

EP2013418 B1	20190131	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 : 20180711
EP2013418 B1	20190131	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 : 20180711
EP2013418 B1	20190228	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 : 20180711
EP2013418 B1	20190228	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 : 20180711
EP2013418 B1	20190412	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007055342 COUNTRY OF REF DOCUMENT : DE
EP2013418 B1	20190430	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 : 20180711
EP2013418 B1	20190430	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 : 20180711
EP2013418 B1	20190430	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 : 20180711
EP2013418 B1	20190430	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 : 20180711
EP2013418 B1	20190531	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 : 20180711
EP2013418 B1	20190531	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

				INFORMATION FROM NATIONAL OFFICE TO EPO]	DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180711
EP2013418 B1	20190619	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190412
EP2013418 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190510 YEAR OF FEE PAYMENT : 13
EP2013418 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190424 YEAR OF FEE PAYMENT : 13
EP2013418 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180711
EP2013418 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190430 YEAR OF FEE PAYMENT : 13
EP2013418 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20190528 YEAR OF FEE PAYMENT : 13
EP2013418 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190517 YEAR OF FEE PAYMENT : 13
EP2013418 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190516 YEAR OF FEE PAYMENT : 13
EP2013418 B1	20200131	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 : 20180711
EP2013418 B1	20200228	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 : 20190502
EP2013418 B1	20200331	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 : 20180711
EP2013418 B1	20270502	PEXP		Calculated Patent Term Expiry	
FR2900537 A1	20071109	LSPB	+	published / reissued	
FR2900537 A1	20160225	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 11
FR2900537 A1	20160708	LSAS	TP	TRANSMISSION OF PROPERTY	PARTYTYPE : OWNER OWNER : DENDRO CONCEPT, FR EFFECTIVE DATE : 20160606
FR2900537 A1	20170316	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
FR2900537 A1	20180420	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 13

FR2900537 A1	20190430	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 14
FR2900537 A1	20200421	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 15
FR2901287 A1	20071123	LSPB	+	published / reissued	
FR2901287 A1	20160225	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 10
FR2901287 A1	20160708	LSAS	TP	TRANSMISSION OF PROPERTY	PARTYTYPE : OWNER OWNER : DENDRO CONCEPT, FR EFFECTIVE DATE : 20160606
FR2901287 A1	20170316	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 11
FR2901287 A1	20180420	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
FR2901287 A1	20190430	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 13
FR2901287 A1	20200421	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 14
WO07125268 A2	20071108	LSPB	+	published / reissued	
WO07125268 A3	20081030	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007765986 COUNTRY OF REF DOCUMENT : EP
WO07125268 A3	20081104	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE

Title: COMPOSITE PRE-FORMED BUILDING PANELS

Abstract: A composite building panel including a central body, substantially parallelepipedic in shape, comprised of an expanded polymer matrix, having opposite faces, a first surface and an opposing second surface; and one or more reinforcing members longitudinally extending across the central body between said opposite faces, having a first side portion embedded in the expanded polymer matrix, and a second side portion extending away from the first surface of the central body and one or more **expansion** holes located in the reinforcing member between the first side portion of the reinforcing member and the first surface of the central body. The central body includes a polymer matrix that expands through the **expansion** holes; and a space defined by the first surface of the central body and the second side portion of the reinforcing members is adapted for accommodating utilities through the space.

Classifications:

International (IPC 8-9): B28B13/00 B28B23/04 B28B3/00 B28C5/08 B32B B32B15/01 B32B15/20 B32B3/00 B32B3/12 B32B3/26 B32B5/14 B32B5/16 B32B7/12 C04B C04B11/00 C04B12/00 C04B14/00 C04B14/02 C04B14/08 C04B14/12 C04B14/18 C04B14/22 C04B14/38 C04B14/42 C04B14/48 C04B16/00 C04B16/06 C04B16/08 C04B18/04 C04B18/06 C04B18/08 C04B18/14 C04B20/00 C04B22/04 C04B24/00 C04B24/12 C04B24/16 C04B24/24 C04B24/26 C04B24/28 C04B24/36 C04B28/00 C04B28/02 C04B28/04 C04B28/06 C04B28/08 C04B38/00 C04B38/08 C04B40/00 C04B7/00 C04B9/00 C08B24/26 C08J9/00 C08J9/16 C08J9/22 C08K3/00 E01C3/00 E04B E04B1/00 E04B1/18 E04B2/86 E04B5/19 E04B5/48 E04C E04C1/00 E04C2/04 E04C2/22 E04C2/26 E04C2/288 E04C2/34 E04C2/38 E04C2/52 E04C5/08 E04F13/074 E04F13/18 E04F15/02 E04G11/36 E04G21/14 (Advanced/Invention); C04B11/40 C04B14/02 C04B14/08 C04B14/10 C04B14/12 C04B14/16 C04B14/18 C04B14/20 C04B14/22 C04B14/38 C04B14/42 C04B16/06 C04B18/04 C04B18/08 C04B18/10 C04B18/14 C04B18/16 C04B24/26 (Advanced/Non-invention); B28B13/00 B28B23/02 B28C5/00 B32B15/01 B32B15/20 B32B3/00 B32B3/12 B32B3/26 B32B5/14 B32B5/16 B32B7/12 C04B11/00 C04B12/00 C04B14/00 C04B14/02 C04B14/38 C04B16/00 C04B18/04 C04B22/00 C04B24/00 C04B28/00 C04B38/08 C04B7/00 C04B9/00 C08J9/00 C08K3/00 E01C3/00 E04B5/17 E04C1/00 E04C2/10 E04C2/26 E04C2/34 E04C2/52 E04C5/00 (Core/Invention); C04B14/02 C04B14/38 C04B18/04 C04B24/00 (Core/Non-invention); C04B E04B E04C (Subclass/Invention)

International (IPC 1-7): C04B16/08 C04B20/00 C04B28/02 C04B38/00 C04B38/08 C08J E04B5/19 E04C1/00

CPC: Y10S264/43 Y10T428/233 Y10T428/269 B32B13/00 B32B3/06 B32B3/26 B32B3/263 B32B3/266 B32B15/08 B32B15/10 B32B15/18 B32B15/20 B32B21/08 B32B27/08 B32B27/302 B32B27/308 B32B27/32 B32B27/365 B32B27/42 B32B2307/3065 B32B2307/546 B32B2307/558 B32B2307/71 B32B2419/04 B32B2607/00 E04B5/06 Y10T428/24008 C04B2103/302 C04B2111/00586 C04B2111/60 C04B20/10 Y10T428/24996 Y10T428/249968 C04B28/00 C04B2103/69 E04B1/24 E04B2/8617 E04B5/026 E04B5/10 E04B5/48 E04B2001/2439 E04B2001/2448 E04B2001/2469 E04B2001/2481 E04B2001/2484 E04B2002/867 Y10T428/249972 Y10T442/665 E04C2/34 E04C2/38 C04B16/082 C04B28/04 C04B2103/67 Y02W30/92 Y02W30/94 C04B28/14 C04B2111/00612 C04B2111/10 C04B2111/30 E04B5/04 E04C2002/045 E04B5/043 E04B5/19 E04C2/044 E04C2/22 Y10T428/24331 Y10T428/25 C04B16/08 C04B28/02 C04B38/009 C04B38/08 C04B2111/0075 C04B2111/40 C04B2201/20 **European:** B32B13/00 B32B15/08 B32B15/10 B32B15/18 B32B15/20 B32B21/08 B32B27/08 B32B27/30A B32B27/30D B32B27/32 B32B27/36A B32B27/42 B32B3/06 B32B3/26 B32B3/26A B32B3/26B C04B16/08 C04B16/08A C04B20/10 C04B28/00 C04B28/02 C04B28/04 C04B28/14 C04B38/00P C04B38/08 E04B1/24 E04B5/02P E04B5/04 E04B5/04H E04B5/06 E04B5/10 E04B5/19 E04B5/48 E04C1/34 E04C2/04D E04C2/22 L32B307/306B L32B307/546 L32B307/558 L32B307/710 L32B419/04 L32B607/00 M04B103/30B M04B103/67 M04B103/69 M04B111/00T6 M04B111/00T4 M04B111/00T6 M04B111/10 M04B111/30 M04B111/40 M04B111/60 M04B201/20 P04B1/24B20 P04B1/24B40 P04B1/24C2 P04B1/24D P04B1/24E P04B2/86E1 P04B2/86P P04C2/04D1

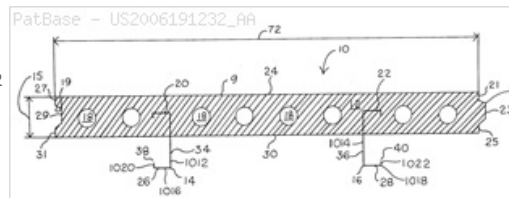
US: 106/603 106/638 106/644 106/668 106/672 106/672S 106/676 106/676S 106/677 106/677S 106/679 106/679S 106/681 106/681S 106/692 106/692S 106/696 106/698 106/698S 106/705 106/705S 106/711 106/711S 106/713 106/713S 106/716 106/718 106/724 106/724S 106/727 106/732 106/732S 106/737 106/778 106/784 106/784S 106/789 106/789S 106/790 106/801 106/801S 106/802 106/802S 106/808 106/811 106/811S 106/814 106/814S 106/816 106/816S 106/823 264/333 264/DIG.43 414/812 414/812P 428/138 428/309.9 428/309.900S 428/312.4 428/312.400P 428/313.5 428/313.500S 428/323 428/323S 428/339 428/339S 428/703 428/71 428/71P 428/99 428/99P 442/386 52/220.1 52/220.100P 52/223.1 52/223.14 52/309.1 52/309.12 52/309.120P 52/309.13 52/309.130P 52/309.16 52/309.17 52/309.170S 52/309.2 52/309.3 52/309.7 52/414 52/481.1 52/481.100S 52/588.1 52/588.100S 52/606 52/606P 52/741.1 52/741.100S 52/800.1 52/800.100P 521/55 521/56 521/56P 521/56S 521/59 521/59P 524/2 524/2P 524/2S 524/3 524/3S 524/4 524/4S 524/5 524/5S 524/8 524/8S 585/639P

JP F-Term: 4G012 4G112 4G112/PA05 4G112/PA06 4G112/PA07 4G112/PA08 4G112/PA09 4G112/PA15 4G112/PA17 4G112/PA20 4G112/PA24 4G112/PA26 4G112/PA27 4G112/PA28 4G112/PA29 4G112/PA30 2D051 2D051/AD07 2D051/AE04 2D051/AE05 2D051/AF01 2D051/AF02 2D051/AF04 2D051/AF05 2D051/AF06 2D051/AF09 2D051/AG03 2D051/AG12 2D051/AG15 2D051/AG16 2D051/AG19 2D051/CA10 4G112/PA02 4G112/PA23 4G019 4G019/LA02 4G019/LB04 4G019/LD02 4G112/MD00 4G112/PB23 4G112/PB25 4G112/PB28 4G112/PB31 4G112/PB33 4G112/PB35

JP F-Index: C04B16/08 C04B28/00 C04B111:40 C04B14/02/Z C04B14/38/A C04B14/38/Z C04B14/42/Z C04B16/06/A C04B18/04 C04B18/08/Z C04B18/14/A C04B18/14/D C04B28/02 E01C3/00 C04B111/40 C04B38/08/C C04B14/12

Family:

Publication number	Publication date	Application number	Application date
AR059997 AA	20080514	AR2007P101141	20070321
AR066381 AA	20090812	AR2008P101853	20080430
AT515485 E	20110715	AT20060739422T	20060322
AU2006216460 AA	20060831	AU20060216460	20060224
AU2006216537 AA	20060831	AU20060216537	20060224
AU2006216537 BB	20110414	AU20060216537	20060224
AU2006216537 BH	20110811	AU20060216537	20060224
AU2006216558 AA	20060831	AU20060216558	20060224
AU2006216558 BB	20100513	AU20060216558	20060224
AU2006226764 AA	20060928	AU20060226764	20060322
AU2006226764 BB	20100624	AU20060226764	20060322
AU2006226916 AA	20060928	AU20060226916	20060322
AU2006226916 BB	20110609	AU20060226916	20060322
AU2007229836 AA	20071004	AU20070229836	20070316
AU2007229845 AA	20071004	AU20070229845	20070316
BRPI0607377 A2	20100323	BR2006PI07377	20060224
BRPI0607914 A2	20100323	BR2006PI07914	20060224



BRPI0607916 A2	20100323	BR2006PI07916	20060224
BRPI0609690 A2	20111018	BR2006PI09690	20060322
BRPI0609706 A2	20111018	BR2006PI09706	20060322
BRPI0709629 A2	20110719	BR2007PI09629	20070316
CA2598172 AA	20070816	CA20062598172	20060224
CA2598172 C	20140520	CA20062598172	20060224
CA2598315 AA	20070816	CA20062598315	20060224
CA2598315 C	20131224	CA20062598315	20060224
CA2598442 AA	20070821	CA20062598442	20060224
CA2598442 C	20110208	CA20062598442	20060224
CA2600998 AA	20070913	CA20062600998	20060322
CA2600998 C	20110510	CA20062600998	20060322
CA2601642 AA	20070917	CA20062601642	20060322
CA2601642 C	20140603	CA20062601642	20060322
CA2644416 AA	20080902	CA20072644416	20070316
CA2644416 C	20160621	CA20072644416	20070316
CA2644417 AA	20080902	CA20072644417	20070316
CA2688668 AA	20081113	CA20082688668	20080429
CL2007000710 A1	20070615	CL20070000710	20070319
CL2008001255 A1	20080808	CL20080001255	20080430
CL48830 B	20121119	CL20070000710	20070319
CN101142077 A	20080312	CN200680006096	20060224
CN101146970 A	20080319	CN200680005974	20060224
CN101316801 A	20081203	CN200680009237	20060322
CN101316801 B	20120328	CN200680009237	20060322
CN101405236 A	20090408	CN200780010237	20070316
CN101437775 A	20090520	CN200680011602	20060224
CN102691372 A	20120926	CN201210183786	20060224
CN102691372 B	20150128	CN201210183786	20060224
CN104453081 A	20150325	CN201410487558	20060224
DE602006022928 D1	20110825	DE200660022928T	20060322
DE602006029802 D1	20120726	DE200660029802T	20060224
DE602007037214 D1	20140731	DE200760037214T	20070316
EP1851043 A2	20071107	EP20060748254	20060224
EP1851043 A4	20140514	EP20060748254	20060224
EP1851396 A2	20071107	EP20060736128	20060224
EP1851396 A4	20140521	EP20060736128	20060224
EP1851396 B1	20160504	EP20060736128	20060224
EP1851398 A1	20071107	EP20060721032	20060224
EP1851398 B1	20120530	EP20060721032	20060224
EP1861559 A2	20071205	EP20060739422	20060322
EP1861559 A4	20090218	EP20060739422	20060322
EP1861559 B1	20110706	EP20060739422	20060322
EP1871724 A2	20080102	EP20060739629	20060322
EP2001817 A2	20081217	EP20070753307	20070316
EP2001817 A4	20110309	EP20070753307	20070316
EP2001817 B1	20140618	EP20070753307	20070316
EP2001818 A2	20081217	EP20070753364	20070316
EP2001818 A4	20110309	EP20070753364	20070316
EP2364959 A1	20110914	EP20110164826	20060322
ES2367180 T3	20111031	ES20060739422T	20060322
ES2389089 T3	20121023	ES20060721032T	20060224
ES2503666 T3	20141007	ES20070753307T	20070316
ES2574012 T3	20160614	ES20060736128T	20060224
HK1107545 A1	20080411	HK20070114228	20071228
HK1107545 A3	20080411	HK20070114228	20071228
HK1107584 A1	20080411	HK20070114227	20071228
HK1107584 A3	20080411	HK20070114227	20071228
HK1110369 A1	20080711	HK20080104327	20080417
HK1110369 A1	20111104	HK20080104327	20080417
HK1110369 A3	20080711	HK20080104327	20080417
HK1110369 B	20111104	HK20080104327	20080417
HK1112225 A1	20080829	HK20080107259	20080630
HK1112225 A3	20080829	HK20080107259	20080630
HK1115173 A1	20121214	HK20080104983	20080505
HK1115173 A1	20081121	HK20080104983	20080505
HK1115173 A3	20081121	HK20080104983	20080505
HK1115173 B	20121214	HK20080104983	20080505
HK1120254 A1	20090327	HK20090100309	20090112
HK1120254 A3	20090327	HK20090100309	20090112
IN02911KN2007 A	20071019	IN2007KN02911	20070809
IN02912KN2007 A	20071019	IN2007KN02912	20070809
IN03177KN2007 A	20071228	IN2007KN03177	20070829
IN03674KN2008 A	20090220	IN2008KN03674	20080908
IN04253CN2007 A	20071221	IN2007CN04253	20070925
IN04709CN2007 A	20080111	IN2007CN04709	20071022

IN251187 B	20120302	IN2007CN04709	20071022
IN251327 B	20120309	IN2007CN04253	20070925
JP2008534418 T2	20080828	JP20080503195T	20060322
JP2008536783 T2	20080911	JP20080503254T	20060322
JP2009530225 T2	20090827	JP20090501470T	20070316
JP2011148700 A2	20110804	JP20110103874	20110506
JP4906843 B2	20120328	JP20080503254T	20060322
MX2007009959 A1	20070926	MX20070009959	20060224
MX2007010039 A1	20070921	MX20070010039	20060224
MX2007010381 A1	20071212	MX20070010381	20060224
MX2007011485 A1	20071011	MX20070011485	20060322
MX2007011640 A1	20080118	MX20070011640	20060322
MX2008011645 A1	20080922	MX20080011645	20070316
MX2008011768 A1	20080925	MX20080011768	20070316
MX2009011890 A1	20091112	MX20090011890	20080429
MX364134 B	20190412	MX20130010391	20060224
PE12892007 A1	20080217	PE20070000285	20070316
PE20071289 A1	20080217	PE20070000285	20070316
TH93166 A	20090130	TH20071001251	20070320
TW200800832 A	20080101	TW20070109786	20070321
TW200904775 A	20090201	TW20080116383	20080502
US2006191232 AA	20060831	US20060361715	20060224
US2006201090 AA	20060914	US20060361654	20060224
US2006217464 AA	20060928	US20060387427	20060322
US2006225618 AA	20061012	US20060387198	20060322
US2006251851 AA	20061109	US20060361189	20060224
US2007027224 AA	20070201	US20060521210	20060914
US2007062415 AA	20070322	US20060586120	20061025
US2008057290 AA	20080306	US20070931401	20071031
US2008058446 AA	20080306	US20070931493	20071031
US2008275149 AA	20081106	US20080110417	20080428
US2008314295 AA	20081225	US20080190724	20080813
US2010064943 AA	20100318	US20090612097	20091104
US2010088984 AA	20100415	US20090636094	20091211
US2010098524 AA	20100422	US20090641724	20091218
US2010197818 AA	20100805	US20100694323	20100127
US2010273902 AA	20101028	US20100830637	20100706
US2011003904 AA	20110106	US20100881674	20100914
US2011138725 AA	20110616	US20110034939	20110225
US2011214391 AA	20110908	US20110103354	20110509
US2011268912 AA	20111103	US20100816626	20100616
US2014059959 AA	20140306	US20130799482	20130313
US7632348 BB	20091215	US20060521210	20060914
US7644548 BB	20100112	US20060387198	20060322
US7648574 BB	20100119	US20070931493	20071031
US7658797 BB	20100209	US20060586120	20061025
US7666258 BB	20100223	US20060361654	20060224
US7699929 BB	20100420	US20080190724	20080813
US7744692 BB	20100629	US20060387427	20060322
US7790302 BB	20100907	US20090636094	20091211
US7820094 BB	20101026	US20090641724	20091218
US7963080 BA	20110621	US20110034939	20110225
US7964272 BB	20110621	US20070931401	20071031
US8029617 BB	20111004	US20090612097	20091104
US8167998 BB	20120501	US20100881674	20100914
US8357240 BB	20130122	US20100694323	20100127
US8726594 BB	20140520	US20060361715	20060224
US8752348 BB	20140617	US20060361189	20060224
USRE43253 E	20120320	US20100770221	20100429
WO06091792 A1	20060831	WO2006US06553	20060224
WO06091864 A2	20060831	WO2006US06686	20060224
WO06091864 A3	20070907	WO2006US06686	20060224
WO06091882 A2	20060831	WO2006US06727	20060224
WO06091882 A3	20080807	WO2006US06727	20060224
WO06091882 C1	20081030	WO2006US06727	20060224
WO06102523 A2	20060928	WO2006US10618	20060322
WO06102523 A3	20080502	WO2006US10618	20060322
WO06102523 A8	20111215	WO2006US10618	20060322
WO06102634 A2	20060928	WO2006US10947	20060322
WO06102634 A3	20070222	WO2006US10947	20060322
WO07111850 A2	20071004	WO2007US06668	20070316
WO07111850 A3	20080821	WO2007US06668	20070316
WO07111859 A2	20071004	WO2007US06731	20070316
WO07111859 A3	20080731	WO2007US06731	20070316
WO08137407 A1	20081113	WO2008US61862	20080429
WO10090933 A1	20100812	WO2010US22326	20100128

Priority:

US20050656596	20050225	US20050656596P	20050225	US20050664230	20050322
US20050664120P	20050322	US20050664230P	20050322	US20050644120P	20050322
US20050686858P	20050602	US20050728839P	20051021	CN200680005974	20060224
CN200680006096	20060224	EP20060721032	20060224	EP20060736128	20060224
US20060361189	20060224	US20060361715	20060224	US20060361654	20060224
WO2006US06727	20060224	WO2006US06686	20060224	WO2006US06553	20060224
EP20060739422	20060322	JP20080503254	20060322	JP20080503254T	20060322
US20060387427	20060322	US20060387198	20060322	WO2006US10947	20060322
WO2006US10618	20060322	US20060521210	20060914	US20060586120	20061025
US20060566120	20061025	EP20070753307	20070316	WO2007US06668	20070316
WO2007US06731	20070316	US20070927565P	20070504	US20070932547P	20070531
US20070962308P	20070727	US20070931401	20071031	US20070931493	20071031
US20080110417	20080428	WO2008US61862	20080429	US20080190724	20080813
US20090150147P	20090205	US20090187315P	20090616	US20090612097	20091104
US20090636094	20091211	US20090641724	20091218	US20100694323	20100127
US20100770221	20100429	US20100816626	20100616	US20100830637	20100706
US20100881674	20100914	US20110034939	20110225	US20110103354	20110509
US20130799482	20130313				

Probable Assignee: SYNTHEON HOLDINGS SPA**Assignee(s):** (std): ADEWALE KOLAPO ; BOWMAN JAY ; BOWMAN JAY J ; BUSKIRK KRISTEN V ; COWAN DAVID A ; DIETRICH IND INC ; GUEVARA TRICIA ; HILEMAN TOBIAS B ; HUGHES RICK ; KELLEY MICHAEL R ; LADELY TRICIA G ; MADISH JOHN K ; MATZ GARY F ; METROMONT CORP ; MOORE MARY M ; MOORE ROGER ; RALPH GREGORY S ; SALAZAR LORENZO L ; SWEAT ALAN ; SYNTHEON HOLDINGS S P A ; NOVA CHEM INC ; SYNTHEON INC ; WILLIAMS MICHAEL T ; WOOLFSMITH DANIEL ; NOVA CHEMICALS INC ; MOORE MARY MARGARET ; MOORE LEGAL REPRESENTATIVE MARY MARGARET ; LADELY TRICIA GUEVARA ; LADELY GUEVARA TRICIA ; HILEMAN BLAIN ; TANG JIANSHEG ; VAN BUSKIRK KRISTEN ; VANBUSKIRK KRISTEN**Assignee(s):** WELLS FARGO BANK NA ; SYNTHEON INC LEETSDALE ; SYNTHEON INC N D GES D STAATES DELAWARE MOON TOWNSHIP ; NOVA CHEMICALS INC ; PENNELL RICHARD H JR ; SYNTHEON HOLDINGS SPA ; MOORE ROGER DECEASED ; MORRE ROGER ; HILEMAN TOBIAS BLAIN ; DIETRICH IND INC PITTSBURGH ; GUEVARA TRICA ; DIETRICH IND**Inventor(s):** (std): ADELWALE KOLAPO ; ADEWALE KOLAPO ; BOWMAN JAY ; BOWMAN JAY J ; BUSKIRK KRISTEN V ; BUSKIRK KRISTEN VAN ; COWAN DAVID ; COWAN DAVID A ; GUEVARA TRICIA ; HILEMAN TOBIAS B ; HILEMAN TOBIAS BLAIN ; HUGHES RICK ; JAY BOWMAN ; KELLEY MICHAEL ; KELLEY MICHAEL R ; MADISH JOHN ; MADISH JOHN K ; MOORE LEGAL REPRESENTATIVE MARY MARGARET ; MOORE MARY MARGARET ; MOORE ROGER ; PENNELL RICHARD H ; SALAZAR LORENZO L ; RALPH GREGORY S ; WILLIAMS MICHAEL T ; COWAN DAVID ALLEN ; WOOLFSMITH DANIEL ; VANBUSKIRK KRISTEN ; VAN BUSKIRK KRISTEN ; TRICIA GUEVARA ; TRICA GUEVARA ; TANG JIAN SHENG ; SWEAT ALAN ; ROGER MORRE ; ROGER MOORE ; RICK HUGHES ; PENNELL RICHARD H JR ; PENNELL JR RICHARD H ; MORRE ROGER ; TANG JIANSHEG ; MOORE MARY M ; MOORE LEGAL REPRESENTATIVE MAR ; MATZ GARY F ; LADELY TRICIA G HILEMAN BLAIN ; LADELY TRICIA G ; LADELY GUEVARA TRICIA ; KRISTEN BUSKIRK VAN ; KOLAPO ADEWALE ; GUEVARA TRICA ; BLAIN HILEMAN TOBIAS ; LADELY TRICIA GUEVARA ; HILEMAN BLAIN**Inventor(s):** PENNELL RICHARD ; DANIEL WOOLFSMITH ; COWAN DAVID A CRANBERRY TOWNSHIP ; JIANSHEG TANG ; HILEMAN TOBIAS ; GUEVARA TRICA KOPPEL ; LADELY (GUEVARA) TRICIA ; KRISTEN VANBUSKIRK ; MATZ GARY ; MADISH JOHN AND ; LADELY TRICIA G HILEMAN BLAIN VAN BUSKIRK... ; LADELY TRICIA G HILEMAN BLAIN VAN BUSKIRK KRISTEN HUGHES RICK TANG JIANSHEG WOOLFSMITH DANIEL ; MOORE MARY ; TANG JIAN SHENG AND ; MOORE ROGER DECEASED ; MOORE ROGER COLUMBIA ; RICHARD H ; PENNELL RICHARD HJR ; TRICIA G LADELY ; WILLIAMS MICHAEL T BEAVER FALLS ; ADEWALE KOLAPO MOON TOWNSHIP ; WOOLFSMITH ; HILEMAN TOBIAS BLAIN NEW CASTLE ; RALPH GREGORY S WEXFORD ; RICHARD H PENNELL ; RICK ; SALAZAR LORENZO ; SALAZAR LORENZO L GIBSONIA ; TANG ; TOBIAS BLAIN HILEMAN ; TRICIA G ; TRICIA GUEVARA LADELY ; VAN BUSKIRK ; VAN BUSKIRK KRISTEN ALIQUIPPA ; WILLIAMS MICHAEL ; RALPH GREGORY ; MADISH JOHN K NEGLEY ; MICHAEL R KELLEY ; MICHAEL T WILLIAMS ; MOORE LEGAL REPRESENTATIVE MARY M ; KELLEY MICHAEL R BUTLER ; KRISTEN ; KRISTEN VAN BUSKIRK ; LADELY ; LORENZO L SALAZAR ; JAY J BOWMAN ; JIANSHEG ; JOHN K MADISH ; JOHN MADISH ; HUGHES RICK BEAVER ; HUGHES ; GUEVARA TRICIA KOPPEL ; GUEVARA TRICIA WILLIAMS MICHAEL T HUGHES RICK KELLEY MICHAEL R MADISH JOHN K VAN BUSKIRK KRISTEN ; HILEMAN ; DANIEL ; DAVID A COWAN ; GARY F MATZ ; GREGORY S RALPH ; BOWMAN JAY J FLORENCE ; BUSKIRK KRISTEN ; BLAIN ; BLAIN HILEMAN**Agent(s):** DAVIES COLLISON CAVE PTY LTD; DAVIES COLLISON CAVE; GRIFFITH HACK; TROTT TREVOR; NORTON ROSE CANADA SENCRL SRL LLP; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; OGILVY RENAULT LLP SENCRL SRL; CHISHOLM P SCOTT; CLARKE; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; HOFFMANN EITL; WATSON ROBERT JAMES; WATSON ROBERT JAMES ET AL; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAUEUSSER; MILTENYI PETER; WENPING AND CO; LIU SHEN AND ASSOCIATES; CHINA PATENT AGENT HK LTD; BENNY KONG AND YEUNG; ONO MAKOTO; KAWAGUCHI YOSHIO; KANAYAMA MASATAKA; TSUBOKURA MICHIAKI; OSAKI KATSUMASA; WEBB LAW FIRM PC; GARY F MATZ NOVA CHEMICALS INC; NOVA CHEMICALS INC; NOVA CHEMICALS INC KAREN S LOCKHART; GARY F; WEBB LAW FIRM; MATZ GARY F**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 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 YU ZA ZM ZW**Legal status (INPADOC)**

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR059997 AA	20080514	LSPB	+	published / reissued	
AR059997 AA	20100427	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AR066381 AA	20090812	LSPB	+	published / reissued	
AR066381 AA	20140116	LSWD	-FB	SUSPENSION OF	

GRANTING PROCEDURE					
AT515485 E	20110715	LSGT	+	granted / extensions (spc, cpc, pte)	
AT515485 E	20120115	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT515485 E	20260322	PEXP		Calculated Patent Term Expiry	
AU2006216460 AA	20060831	LSPB	+	published / reissued	
AU2006216460 AA	20100211	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2006216537 AA	20060831	LSPB	+	published / reissued	
AU2006216537 BB	20110414	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006216537 BB	20260224	PEXP		Calculated Patent Term Expiry	
AU2006216537 BH	20110811	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006216537 BH	20160922	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2006216558 AA	20060831	LSPB	+	published / reissued	
AU2006216558 AA	20100422	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS, INC. OLDPARTY : FORMER APPLICANT(S): DIETRICH INDUSTRIES, INC.; NOVA CHEMICALS, INC.
AU2006216558 BB	20100513	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006216558 BB	20100909	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006216558 BB	20160922	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2006216558 BB	20260224	PEXP		Calculated Patent Term Expiry	
AU2006226764 AA	20060928	LSPB	+	published / reissued	
AU2006226764 BB	20100624	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006226764 BB	20101021	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006226764 BB	20161020	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2006226764 BB	20260322	PEXP		Calculated Patent Term Expiry	
AU2006226916 AA	20060928	LSPB	+	published / reissued	
AU2006226916 BB	20110609	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006226916 BB	20111006	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006226916 BB	20111124	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: AMEND THE NAME OF THE INVENTOR TO READ MOORE, ROGER; WILLIAMS, MICHAEL T.; MADISH, JOHN K.; GUEVARA, TRICA; ADEWALE, KOLAPO; COWAN, DAVID A. AND HILEMAN, TOBIAS BLAIN.
AU2006226916 BB	20120216	LSRE	DA3	AMENDMENTS MADE	TEXT : THE NATURE OF THE

				SECTION 104	AMENDMENT IS: AMEND THE NAME OF THE INVENTOR TO READ MOORE, ROGER; WILLIAMS, MICHAEL T.; MADISH, JOHN K.; GUEVARA, TRICA; ADEWALE, KOLAPO; COWAN, DAVID A. AND HILEMAN, TOBIAS BLAIN
AU2006226916 BB	20161110	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2006226916 BB	20260322	PEXP		Calculated Patent Term Expiry	
AU2007229836 AA	20071004	LSPB	+	published / reissued	
AU2007229836 AA	20110210	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2007229845 AA	20071004	LSPB	+	published / reissued	
AU2007229845 AA	20110210	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
BRPI0607377 A2	20100323	LSPB	+	published / reissued	
BRPI0607377 A2	20140429	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 8A ANUIDADE.
BRPI0607377 A2	20140826	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 2260 DE 29/04/2014.
BRPI0607914 A2	20100323	LSPB	+	published / reissued	
BRPI0607914 A2	20170110	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 11A ANUIDADE.
BRPI0607914 A2	20170425	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	
BRPI0607914 A2	20180227	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0607914 A2	20180306	LSES	B07B	TECHNICAL EXAMINATION (OPINION): PUBLICATION CANCELLED	
BRPI0607916 A2	20100323	LSPB	+	published / reissued	
BRPI0607916 A2	20160816	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0607916 A2	20161227	LSRV	B09B	DECISION: REFUSAL	TEXT : INDEFIRO O PEDIDO DE ACORDO COM O(S) ARTIGO(S) 80 COMBINADO COM O 13 E ARTIGOS 22 E 25 DA LPI
BRPI0607916 A2	20170509	LSRV	B09B	DECISION: REFUSAL	
BRPI0609690 A2	20111018	LSPB	+	published / reissued	
BRPI0609690 A2	20140506	LSFE	-B08F	APPLICATION FEES: DISMISSAL -	TEXT : REFERENTE A 8A ANUIDADE.

BRPI0609690 A2	20140902	LSLE	-B08K	ARTICLE 86 OF INDUSTRIAL PROPERTY LAW 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.
BRPI0609706 A2	20111018	LSPB	+	published / reissued	
BRPI0609706 A2	20140506	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 8A ANUIDADE.
BRPI0609706 A2	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.
BRPI0709629 A2	20110719	LSPB	+	published / reissued	
BRPI0709629 A2	20140429	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 7A ANUIDADE.
BRPI0709629 A2	20140826	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 2260 DE 29/04/2014.
CA2598172 AA	20070816	LSPB	+	published / reissued	
CA2598172 AA	20110119	LSES	+EEER	EXAMINATION REQUEST	
CA2598172 C	20140520	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2598172 C	20260224	PEXP		Calculated Patent Term Expiry	
CA2598315 AA	20070816	LSPB	+	published / reissued	
CA2598315 AA	20110119	LSES	+EEER	EXAMINATION REQUEST	
CA2598315 AA	20170408	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20170224
CA2598315 C	20131224	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2598315 C	20260224	PEXP		Calculated Patent Term Expiry	
CA2598442 AA	20070821	LSPB	+	published / reissued	
CA2598442 AA	20070821	LSES	+EEER	EXAMINATION REQUEST	
CA2598442 C	20110208	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2598442 C	20260224	PEXP		Calculated Patent Term Expiry	
CA2600998 AA	20070913	LSPB	+	published / reissued	
CA2600998 AA	20070913	LSES	+EEER	EXAMINATION REQUEST	
CA2600998 C	20110510	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2600998 C	20260322	PEXP		Calculated Patent Term Expiry	
CA2601642 AA	20070917	LSPB	+	published / reissued	
CA2601642 AA	20110216	LSES	+EEER	EXAMINATION REQUEST	
CA2601642 C	20140603	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2601642 C	20260322	PEXP		Calculated Patent Term Expiry	
CA2644416 AA	20080902	LSPB	+	published / reissued	
CA2644416 AA	20120214	LSES	+EEER	EXAMINATION	

CA2644416 C	20160621	LSGT	+	REQUEST granted / extensions (spc, cpc, pte)	
CA2644416 C	20270316	PEXP		Calculated Patent Term Expiry	
CA2644417 AA	20080902	LSPB	+	published / reissued	
CA2644417 AA	20130513	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20130318
CA2688668 AA	20081113	LSPB	+	published / reissued	
CA2688668 AA	20130624	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20130429
CL2007000710 A1	20070615	LSPB	+	published / reissued	
CL2008001255 A1	20080808	LSPB	+	published / reissued	
CL48830 B	20121119	LSGT	+	granted / extensions (spc, cpc, pte)	
CL48830 B	20270319	PEXP		Calculated Patent Term Expiry	
CN101142077 A	20080312	LSPB	+	published / reissued	
CN101142077 A	20080312	LSPB	+C06	PUBLICATION	
CN101142077 A	20140716	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE : OWNER OWNER : XINXI'ANG COMPANY OLDPARTY : FORMER OWNER : NOVA CHEMICALS INC. EFFECTIVE DATE : 20140624
CN101142077 A	20140716	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN101142077 A	20151104	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN101146970 A	20080319	LSPB	+	published / reissued	
CN101146970 A	20080319	LSPB	+C06	PUBLICATION	
CN101146970 A	20150311	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	
CN101316801 A	20081203	LSPB	+	published / reissued	
CN101316801 A	20081203	LSPB	+C06	PUBLICATION	
CN101316801 B	20120328	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101316801 B	20120328	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101316801 B	20160511	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN101316801 B	20260322	PEXP		Calculated Patent Term Expiry	
CN101405236 A	20090408	LSPB	+	published / reissued	
CN101405236 A	20090408	LSPB	+C06	PUBLICATION	
CN101405236 A	20141224	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	
CN101437775 A	20090520	LSPB	+	published / reissued	
CN101437775 A	20090520	LSPB	+C06	PUBLICATION	
CN101437775 A	20130807	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN102691372 A	20120926	LSPB	+	published / reissued	
CN102691372 A	20120926	LSPB	+C06	PUBLICATION	

CN102691372 A	20140702	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE : OWNER OWNER : XINXI'ANG COMPANY OLDPARTY : FORMER OWNER : NOVA CHEMICALS INC. EFFECTIVE DATE : 20140609
CN102691372 A	20140702	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN102691372 A	20150128	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102691372 A	20170405	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN102691372 B	20150128	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102691372 B	20260224	PEXP		Calculated Patent Term Expiry	
CN104453081 A	20150325	LSPB	+	published / reissued	
CN104453081 A	20150325	LSPB	+C06	PUBLICATION	
CN104453081 A	20170201	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
DE602006022928 D1	20110706	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US OLDPARTY : NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US
DE602006022928 D1	20131009	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE), MOON TOWNSHIP, PA., US OLDPARTY : NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US
DE602006022928 D1	20181002	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
DE602006029802 D1	20120605	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US OWNER : NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US OLDPARTY : DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US OLDPARTY : NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US
DE602006029802 D1	20131009	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE), MOON TOWNSHIP, PA., US OLDPARTY : DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US OLDPARTY : NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US
DE602006029802 D1	20180901	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
DE602007037214 D1	20181002	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
EP1851043 A2	20071107	LSPB	+	published / reissued	

EP1851043 A2	20071107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070913
EP1851043 A4	20140514	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140410
EP1851043 A4	20140919	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1107545 COUNTRY OF REF DOCUMENT : HK
EP1851043 A4	20151021	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20150918
EP1851043 A4	20160629	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160129
EP1851396 A2	20071107	LSPB	+	published / reissued	
EP1851396 A2	20071107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070831
EP1851396 A2	20080917	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20080807
EP1851396 A4	20140521	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140417
EP1851396 A4	20140919	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1107584 COUNTRY OF REF DOCUMENT : HK
EP1851396 A4	20151202	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20151103
EP1851396 B1	20160504	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1851396 B1	20160504	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1851396 B1	20160513	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1851396 B1	20160515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 796760 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160515
EP1851396 B1	20160601	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1851396 B1	20160614	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2574012 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20160614
EP1851396 B1	20160623	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006048964 COUNTRY OF REF DOCUMENT : DE
EP1851396 B1	20160912	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP1851396 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-

				EPO]	LIMIT LAPSED DATE : 20160504
EP1851396 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160504
EP1851396 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160504
EP1851396 B1	20161115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 796760 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160504
EP1851396 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160805
EP1851396 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160504
EP1851396 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160905
EP1851396 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160504
EP1851396 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160504
EP1851396 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160504
EP1851396 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE

				NATIONAL OFFICE TO EPO]	WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160504
EP1851396 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 : 20160504
EP1851396 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 : 20160504
EP1851396 B1	20170207	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006048964 COUNTRY OF REF DOCUMENT : DE
EP1851396 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 : 20160504
EP1851396 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 : 20160504
EP1851396 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 : 20160504
EP1851396 B1	20170228	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 : 12
EP1851396 B1	20170412	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170207
EP1851396 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170224 YEAR OF FEE PAYMENT : 12
EP1851396 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 12
EP1851396 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 : 20160504
EP1851396 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 12
EP1851396 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT : ES

EP1851396 B1	20170630	LSFE	+PGFP	NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 12 COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 12
EP1851396 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 : 20160504
EP1851396 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1851396 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
EP1851396 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
EP1851396 B1	20171129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1851396 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
EP1851396 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
EP1851396 B1	20180901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602006048964 COUNTRY OF REF DOCUMENT : DE
EP1851396 B1	20181024	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20180224
EP1851396 B1	20181130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20181031
EP1851396 B1	20190131	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 : 20180901
EP1851396 B1	20190228	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 : 20180224
EP1851396 B1	20190228	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 : 20180228

EP1851396 B1	20190228	LSLE	-PG25	EPO] 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 : 20180224
EP1851396 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 : 20060224
EP1851396 B1	20190801	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20190801
EP1851396 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 : 20160504
EP1851396 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20180225
EP1851396 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 : 20160504
EP1851396 B1	20200331	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 : 20160504
EP1851396 B1	20260224	PEXP		Calculated Patent Term Expiry	
EP1851398 A1	20071107	LSPB	+	published / reissued	
EP1851398 A1	20071107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070824
EP1851398 A1	20100428	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20100325
EP1851398 A1	20111207	LSRE	RTI1	TITLE (CORRECTION)	TEXT : COMPOSITE PRE-FORMED BUILDING PANELS, A BUILDING AND A METHOD OF CONSTRUCTING A BUILDING
EP1851398 A1	20130228	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 : 20120530
EP1851398 A1	20130228	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 : 20120530

EP1851398 A1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20120530
EP1851398 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160225 YEAR OF FEE PAYMENT : 11
EP1851398 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 11
EP1851398 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160225 YEAR OF FEE PAYMENT : 11
EP1851398 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 11
EP1851398 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 11
EP1851398 B1	20120530	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1851398 B1	20120530	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1851398 B1	20120531	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1851398 B1	20120615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 560153 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120615
EP1851398 B1	20120620	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1851398 B1	20120726	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120726
EP1851398 B1	20120919	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20120530
EP1851398 B1	20121023	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2389089 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20121023
EP1851398 B1	20121025	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D EFFECTIVE DATE : 20120530
EP1851398 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-

				EPO]	LIMIT LAPSED DATE : 20120530
EP1851398 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120930
EP1851398 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20121115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 560153 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120530
EP1851398 B1	20121130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20121130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20121130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120831
EP1851398 B1	20121214	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1115173 COUNTRY OF REF DOCUMENT : HK
EP1851398 B1	20121231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530

EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120530
EP1851398 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121001
EP1851398 B1	20130508	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20130301
EP1851398 B1	20130704	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER :

					602006029802 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130301
EP1851398 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120830
EP1851398 B1	20130930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130228
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : DIETRICH INDUSTRIES, INC., US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20120605
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE), US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20120605
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : DIETRICH INDUSTRIES, INC., PITTSBURGH, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20131009
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE),, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20120605
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : DIETRICH INDUSTRIES, INC., PITTSBURGH, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNERS: DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US; NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US EFFECTIVE DATE : 20120605
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE),, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER :

					602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNERS: DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US; NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US EFFECTIVE DATE : 20131009
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE), US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20131009
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : DIETRICH INDUSTRIES, INC., US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20131009
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : DIETRICH INDUSTRIES, INC., PITTSBURGH, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20120605
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE),, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: DIETRICH INDUSTRIES, INC., NOVA CHEMICALS INC., , US EFFECTIVE DATE : 20131009
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : DIETRICH INDUSTRIES, INC., PITTSBURGH, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNERS: DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US; NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US EFFECTIVE DATE : 20131009
EP1851398 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE),, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNERS: DIETRICH INDUSTRIES, INC., PITTSBURGH, PA., US; NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US EFFECTIVE DATE : 20120605
EP1851398 B1	20131204	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A

EP1851398 B1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130224
EP1851398 B1	20150430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20150213 YEAR OF FEE PAYMENT : 10
EP1851398 B1	20150529	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20150217 YEAR OF FEE PAYMENT : 10
EP1851398 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130224
EP1851398 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONNOFLAPSE : 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 : 20060224
EP1851398 B1	20160224	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1851398 B1	20160930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1851398 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160229
EP1851398 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160229
EP1851398 B1	20170409	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1851398 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170224 YEAR OF FEE PAYMENT : 12
EP1851398 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170409 YEAR OF FEE PAYMENT : 12
EP1851398 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170409 YEAR OF FEE PAYMENT : 12
EP1851398 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170418 YEAR OF FEE PAYMENT : 12
EP1851398 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170428 YEAR OF FEE PAYMENT : 12
EP1851398 B1	20180901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119

					REF DOCUMENT NUMBER : 602006029802 COUNTRY OF REF DOCUMENT : DE
EP1851398 B1	20181024	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20180224
EP1851398 B1	20181130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20181031
EP1851398 B1	20190131	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 : 20180901
EP1851398 B1	20190228	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 : 20180224
EP1851398 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20180224
EP1851398 B1	20190228	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 : 20180228
EP1851398 B1	20190801	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20190801
EP1851398 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20180225
EP1851398 B1	20260224	PEXP		Calculated Patent Term Expiry	
EP1861559 A2	20071205	LSPB	+	published / reissued	
EP1861559 A2	20071205	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070921
EP1861559 A2	20080618	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20080502
EP1861559 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160229 YEAR OF FEE PAYMENT : 11
EP1861559 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 11
EP1861559 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160210 YEAR OF FEE PAYMENT : 11
EP1861559 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 11
EP1861559 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160219 YEAR OF FEE PAYMENT : 11

EP1861559 A4	20090218	LSSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20090119
EP1861559 A4	20090617	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20090515
EP1861559 B1	20110706	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1861559 B1	20110706	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1861559 B1	20110715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1861559 B1	20110803	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1861559 B1	20110825	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110825
EP1861559 B1	20110928	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1861559 B1	20111031	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2367180 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20111031
EP1861559 B1	20111104	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1110369 COUNTRY OF REF DOCUMENT : HK
EP1861559 B1	20111130	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 : 20110706
EP1861559 B1	20120115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 515485 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20110706
EP1861559 B1	20120131	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 : 20110706
EP1861559 B1	20120131	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 : 20111107
EP1861559 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE

				NATIONAL OFFICE TO EPO]	WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110706
EP1861559 B1	20120131	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 : 20110706
EP1861559 B1	20120131	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 : 20111106
EP1861559 B1	20120131	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 : 20110706
EP1861559 B1	20120229	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 : 20110706
EP1861559 B1	20120229	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 : 20110706
EP1861559 B1	20120229	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 : 20111007
EP1861559 B1	20120229	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 : 20110706
EP1861559 B1	20120229	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 : 20110706
EP1861559 B1	20120430	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 : 20110706
EP1861559 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT

				INFORMATION FROM NATIONAL OFFICE TO EPO]	A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110706
EP1861559 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110706
EP1861559 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110706
EP1861559 B1	20120613	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20120411
EP1861559 B1	20120629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110706
EP1861559 B1	20120802	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120411
EP1861559 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120331
EP1861559 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111006
EP1861559 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE), US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: NOVA CHEMICALS INC., MOON TOWNSHIP, US EFFECTIVE DATE : 20110706
EP1861559 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE),, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US EFFECTIVE DATE : 20131009
EP1861559 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE), US

EP1861559 B1	20131128	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: NOVA CHEMICALS INC., MOON TOWNSHIP, US EFFECTIVE DATE : 20131009
EP1861559 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : SYNTHEON INC.(N. D. GES. D. STAATES DELAWARE),, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: NOVA CHEMICALS INC., MOON TOWNSHIP, PA., US EFFECTIVE DATE : 20110706
EP1861559 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED 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 : 20110706
EP1861559 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20140311 YEAR OF FEE PAYMENT : 9
EP1861559 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140312 YEAR OF FEE PAYMENT : 9
EP1861559 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20140308 YEAR OF FEE PAYMENT : 9
EP1861559 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 : 20120322
EP1861559 B1	20140731	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 LAPSED DATE : 20060322
EP1861559 B1	20151030	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1861559 B1	20160113	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1861559 B1	20160129	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 : 20150331
EP1861559 B1	20160129	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 : 20150331
EP1861559 B1	20160129	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 : 20150322

EP1861559 B1	20160224	LSFE	REG	EPO] REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1861559 B1	20170329	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 : 12
EP1861559 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170329 YEAR OF FEE PAYMENT : 12
EP1861559 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170321 YEAR OF FEE PAYMENT : 12
EP1861559 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20150401
EP1861559 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170315 YEAR OF FEE PAYMENT : 12
EP1861559 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170330 YEAR OF FEE PAYMENT : 12
EP1861559 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170329 YEAR OF FEE PAYMENT : 12
EP1861559 B1	20181002	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602006022928 COUNTRY OF REF DOCUMENT : DE
EP1861559 B1	20181121	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20180322
EP1861559 B1	20190131	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 : 20181002
EP1861559 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20180322
EP1861559 B1	20190228	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 : 20180322
EP1861559 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 : 20180331
EP1861559 B1	20190911	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20190911

EP1861559 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180323
EP1861559 B1	20260322	PEXP		Calculated Patent Term Expiry	
EP1871724 A2	20080102	LSPB	+	published / reissued	
EP1871724 A2	20080102	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070925
EP1871724 A2	20101110	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20101012
EP1871724 A2	20121219	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20120523
EP1871724 A2	20141017	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1112225 COUNTRY OF REF DOCUMENT : HK
EP2001817 A2	20081217	LSPB	+	published / reissued	
EP2001817 A2	20081217	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081001
EP2001817 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160322 YEAR OF FEE PAYMENT : 10
EP2001817 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160328 YEAR OF FEE PAYMENT : 10
EP2001817 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160321 YEAR OF FEE PAYMENT : 10
EP2001817 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160329 YEAR OF FEE PAYMENT : 10
EP2001817 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160331 YEAR OF FEE PAYMENT : 10
EP2001817 A4	20110309	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20110203
EP2001817 A4	20120104	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20111201
EP2001817 A4	20140115	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20131219
EP2001817 A4	20140409	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : SYNTHETON INC.
EP2001817 B1	20140618	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2001817 B1	20140618	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2001817 B1	20140630	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2001817 B1	20140715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 673241 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140715

EP2001817 B1	20140716	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2001817 B1	20140731	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007037214 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140731
EP2001817 B1	20141007	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2503666 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20141007
EP2001817 B1	20141031	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 : 20140618
EP2001817 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 : 20140919
EP2001817 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 : 20140618
EP2001817 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 : 20140618
EP2001817 B1	20141112	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20140618
EP2001817 B1	20141115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 673241 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140618
EP2001817 B1	20141125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2001817 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 : 20140618
EP2001817 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-

				EPO]	LIMIT LAPSED DATE : 20140618
EP2001817 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 : 20140618
EP2001817 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 : 20140618
EP2001817 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 : 20140618
EP2001817 B1	20150130	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 : 20141020
EP2001817 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 : 20140618
EP2001817 B1	20150227	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 : 20140618
EP2001817 B1	20150227	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 : 20141018
EP2001817 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 : 20140618
EP2001817 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 : 20140618
EP2001817 B1	20150319	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007037214 COUNTRY OF REF DOCUMENT : DE

EP2001817 B1	20150430	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 : 20140618
EP2001817 B1	20150527	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150319
EP2001817 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140618
EP2001817 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 : 20140618
EP2001817 B1	20151009	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1120254 COUNTRY OF REF DOCUMENT : HK
EP2001817 B1	20151030	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 : 20150316
EP2001817 B1	20151030	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 : 20140618
EP2001817 B1	20151030	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2001817 B1	20160113	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2001817 B1	20160129	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 : 20150316
EP2001817 B1	20160129	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 : 20150331
EP2001817 B1	20160129	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 : 20150331
EP2001817 B1	20160328	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 : 10

EP2001817 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 : 20140618
EP2001817 B1	20170329	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 : 11
EP2001817 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170329 YEAR OF FEE PAYMENT : 11
EP2001817 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 : 20140618
EP2001817 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 : 20070316
EP2001817 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170329 YEAR OF FEE PAYMENT : 11
EP2001817 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170331 YEAR OF FEE PAYMENT : 11
EP2001817 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170328 YEAR OF FEE PAYMENT : 11
EP2001817 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 : 20140618
EP2001817 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170330 YEAR OF FEE PAYMENT : 11
EP2001817 B1	20181002	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602007037214 COUNTRY OF REF DOCUMENT : DE
EP2001817 B1	20181121	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20180316
EP2001817 B1	20190131	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 : 20181002
EP2001817 B1	20190228	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

EP2001817 B1	20190228	LSLE	-PG25	CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	GB NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180316
EP2001817 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180316
EP2001817 B1	20190911	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20190911
EP2001817 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180317
EP2001817 B1	20270316	PEXP		Calculated Patent Term Expiry	
EP2001818 A2	20081217	LSPB	+	published / reissued	
EP2001818 A2	20081217	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081001
EP2001818 A4	20110309	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20110203
EP2001818 A4	20110420	LSWD	-18W	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20110210
EP2364959 A1	20110914	LSPB	+	published / reissued	
EP2364959 A1	20120418	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120313
EP2364959 A1	20120606	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120504
EP2364959 A1	20130410	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20120915
ES2367180 T3	20111031	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2367180 T3	20260322	PEXP		Calculated Patent Term Expiry	
ES2389089 T3	20121023	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2389089 T3	20260224	PEXP		Calculated Patent Term Expiry	
ES2503666 T3	20141007	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2503666 T3	20270316	PEXP		Calculated Patent Term Expiry	
ES2574012 T3	20160614	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2574012 T3	20260224	PEXP		Calculated Patent Term Expiry	
HK1107545 A1	20080411	LSPB	+	published / reissued	
HK1107545 A3	20080411	LSPB	+	published / reissued	
HK1107584 A1	20080411	LSPB	+	published / reissued	
HK1107584 A3	20080411	LSPB	+	published / reissued	
HK1110369 A1	20080711	LSPB	+	published / reissued	
HK1110369 A1	20111104	LSPB	+	published / reissued	

HK1110369 A1	20151016	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20150322
HK1110369 A1	20151016	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20150322
HK1110369 A1	20280417	PEXP		Calculated Patent Term Expiry	
HK1110369 A1	20280417	PEXP		Calculated Patent Term Expiry	
HK1110369 A3	20080711	LSPB	+	published / reissued	
HK1110369 B	20111104	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1110369 B	20280417	PEXP		Calculated Patent Term Expiry	
HK1112225 A1	20080829	LSPB	+	published / reissued	
HK1112225 A3	20080829	LSPB	+	published / reissued	
HK1115173 A1	20081121	LSPB	+	published / reissued	
HK1115173 A1	20121214	LSPB	+	published / reissued	
HK1115173 A1	20160915	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20160224
HK1115173 A1	20160915	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20160224
HK1115173 A1	20280505	PEXP		Calculated Patent Term Expiry	
HK1115173 A1	20280505	PEXP		Calculated Patent Term Expiry	
HK1115173 A3	20081121	LSPB	+	published / reissued	
HK1115173 B	20121214	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1115173 B	20280505	PEXP		Calculated Patent Term Expiry	
HK1120254 A1	20090327	LSPB	+	published / reissued	
HK1120254 A3	20090327	LSPB	+	published / reissued	
IN02911KN2007 A	20071019	LSPB	+	published / reissued	
IN02912KN2007 A	20071019	LSPB	+	published / reissued	
IN03177KN2007 A	20071228	LSPB	+	published / reissued	
IN03674KN2008 A	20090220	LSPB	+	published / reissued	
IN04253CN2007 A	20071221	LSPB	+	published / reissued	
IN04709CN2007 A	20080111	LSPB	+	published / reissued	
IN251187 B	20120302	LSGT	+	granted / extensions (spc, cpc, pte)	
IN251187 B	20271022	PEXP		Calculated Patent Term Expiry	
IN251327 B	20120309	LSGT	+	granted / extensions (spc, cpc, pte)	
IN251327 B	20270925	PEXP		Calculated Patent Term Expiry	
JP2008534418 T2	20080828	LSPB	+	published / reissued	
JP2008534418 T2	20081031	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20081030
JP2008534418 T2	20110622	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110621
JP2008534418 T2	20110916	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523

					EFFECTIVE DATE : 20110915
JP2008534418 T2	20120613	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20120612
JP2008536783 T2	20080911	LSPB	+	published / reissued	
JP2008536783 T2	20100824	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100823
JP2008536783 T2	20101125	LSRE	A524	WRITTEN SUBMISSION OF COPY OF AMENDMENT UNDER SECTION 19 (PCT)	TEXT : JAPANESE INTERMEDIATE CODE: A524 EFFECTIVE DATE : 20101124
JP2008536783 T2	20101214	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20101124
JP2008536783 T2	20110207	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110204
JP2008536783 T2	20110507	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110506
JP2008536783 T2	20110525	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20110506
JP2008536783 T2	20111207	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2008536783 T2	20111215	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20111214
JP2008536783 T2	20111222	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008536783 T2	20120119	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120110
JP2008536783 T2	20120120	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2008536783 T2	20120120	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2009530225 T2	20090827	LSPB	+	published / reissued	
JP2009530225 T2	20091225	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20091224
JP2009530225 T2	20120411	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120410
JP2009530225 T2	20121003	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20121002
JP2011148700 A2	20110804	LSPB	+	published / reissued	
JP2011148700 A2	20110510	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20110506
JP2011148700 A2	20121002	LSWD	-A300	WITHDRAWAL OF APPLICATION BECAUSE OF NO REQUEST FOR EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A300 EFFECTIVE DATE : 20121002

JP4906843 B2	20120328	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4906843 B2	20120117	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4906843 B2	20150108	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4906843 B2	20150113	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4906843 B2	20160120	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4906843 B2	20260322	PEXP		Calculated Patent Term Expiry	
MX2007009959 A1	20070926	LSPB	+	published / reissued	
MX2007009959 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2007009959 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC.
MX2007009959 A1	20140715	LSGT	+FG	GRANT OR REGISTRATION	
MX2007010039 A1	20070921	LSPB	+	published / reissued	
MX2007010039 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2007010039 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC.
MX2007010039 A1	20131219	LSGT	+FG	GRANT OR REGISTRATION	
MX2007010381 A1	20071212	LSPB	+	published / reissued	
MX2007010381 A1	20130603	LSGT	+FG	GRANT OR REGISTRATION	
MX2007010381 A1	20130716	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2007011485 A1	20071011	LSPB	+	published / reissued	
MX2007011485 A1	20110719	LSGT	+FG	GRANT OR REGISTRATION	
MX2007011485 A1	20130411	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2007011640 A1	20080118	LSPB	+	published / reissued	
MX2007011640 A1	20121219	LSGT	+FG	GRANT OR REGISTRATION	
MX2007011640 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2008011645 A1	20080922	LSPB	+	published / reissued	
MX2008011768 A1	20080925	LSPB	+	published / reissued	
MX2008011768 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2009011890 A1	20091112	LSPB	+	published / reissued	
MX2009011890 A1	20130311	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX364134 B	20190412	LSGT	+	granted / extensions (spc, cpc, pte)	
MX364134 B	20260224	PEXP		Calculated Patent Term Expiry	
PE12892007 A1	20080217	LSPB	+	published / reissued	
PE12892007 A1	20090316	LSWD	-FX	VOLUNTARY WITHDRAWAL	
PE20071289 A1	20080217	LSPB	+	published / reissued	
TH93166 A	20090130	LSPB	+	published / reissued	
TW200800832 A	20080101	LSPB	+	published / reissued	
TW200904775 A	20090201	LSPB	+	published / reissued	
US2006191232 AA	20060831	LSPB	+	published / reissued	

US2006191232 AA	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US2006191232 AA	20140430	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006201090 AA	20060914	LSPB	+	published / reissued	
US2006217464 AA	20060928	LSPB	+	published / reissued	
US2006217464 AA	20100609	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006225618 AA	20061012	LSPB	+	published / reissued	
US2006225618 AA	20091223	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006251851 AA	20061109	LSPB	+	published / reissued	
US2006251851 AA	20070823	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BOWMAN, JAY J.; REEL/FRAME:019738/0502 EFFECTIVE DATE : 20070820
US2006251851 AA	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US2006251851 AA	20140528	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007027224 AA	20070201	LSPB	+	published / reissued	
US2007062415 AA	20070322	LSPB	+	published / reissued	
US2007062415 AA	20100120	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008057290 AA	20080306	LSPB	+	published / reissued	
US2008057290 AA	20110601	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008058446 AA	20080306	LSPB	+	published / reissued	
US2008058446 AA	20091230	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008275149 AA	20081106	LSPB	+	published / reissued	
US2008275149 AA	20080604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LADELY, TRICIA G.; HILEMAN, BLAIN; VAN BUSKIRK, KRISTEN; AND OTHERS; REEL/FRAME:021039/0207; SIGNING DATES FROM 20080423 TO 20080507
US2008275149 AA	20100709	LSWD	-EAB1	Expressly Abandoned -- During Examination	
US2008314295 AA	20081225	LSPB	+	published / reissued	
US2008314295 AA	20100331	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010064943 AA	20100318	LSPB	+	published / reissued	

US2010064943 AA	20110914	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010088984 AA	20100415	LSPB	+	published / reissued	
US2010088984 AA	20100818	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010098524 AA	20100422	LSPB	+	published / reissued	
US2010098524 AA	20101006	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010197818 AA	20100805	LSPB	+	published / reissued	
US2010197818 AA	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US2010197818 AA	20121229	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010273902 AA	20101028	LSPB	+	published / reissued	
US2010273902 AA	20100706	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LADELY, TRICIA G.; HILEMAN, BLAIN; VAN BUSKIRK, KRISTEN; AND OTHERS; SIGNING DATES FROM 20080423 TO 20080507; REEL/FRAME:024637/0416
US2010273902 AA	20111130	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011003904 AA	20110106	LSPB	+	published / reissued	
US2011003904 AA	20120411	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011138725 AA	20110616	LSPB	+	published / reissued	
US2011214391 AA	20110908	LSPB	+	published / reissued	
US2011214391 AA	20121031	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011268912 AA	20111103	LSPB	+	published / reissued	
US2011268912 AA	20120529	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BOWMAN, JAY; REEL/FRAME:028281/0055 EFFECTIVE DATE : 20120524
US2011268912 AA	20121231	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014059959 AA	20140306	LSPB	+	published / reissued	
US2014059959 AA	20131022	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS, INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BOWMAN, JAY J; REEL/FRAME:031451/0661 EFFECTIVE DATE : 20060223
US2014059959 AA	20131022	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:031451/0829 EFFECTIVE DATE : 20120921

US2014059959 AA	20131022	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DIETRICH INDUSTRIES, INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SALAZAR, LORENZO L; RALPH, GREGORY S; REEL/FRAME:031451/0737 EFFECTIVE DATE : 20060407
US2014059959 AA	20150627	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US7632348 BB	20091215	LSGT	+	granted / extensions (spc, cpc, pte)	
US7632348 BB	20061011	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COWAN, DAVID A.; GUEVARA, TRICIA; MATZ, GARY F.; REEL/FRAME:018377/0023; SIGNING DATES FROM 20061009 TO 20061010
US7632348 BB	20091124	LSGT	PAT1	Patented Case	
US7632348 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7632348 BB	20130605	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7632348 BB	20180115	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US7632348 BB	20180119	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7632348 BB	20180119	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7632348 BB	20180206	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20171215
US7632348 BB	20280415	PEXP		Calculated Patent Term Expiry (PTA 579 days and a terminal disclaimer has been filed)	
US7644548 BB	20100112	LSGT	+	granted / extensions (spc, cpc, pte)	
US7644548 BB	20060613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GUEVARA, TRICIA; WILLIAMS, MICHAEL T.; COWAN, DAVID A.; AND OTHERS; REEL/FRAME:017771/0819; SIGNING DATES FROM 20060324 TO 20060517
US7644548 BB	20091223	LSGT	PAT1	Patented Case	
US7644548 BB	20100427	LSRE	CC	CERTIFICATE OF CORRECTION	
US7644548 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001

EFFECTIVE DATE : 20120918					
US7644548 BB	20130612	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7644548 BB	20170302	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7644548 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7644548 BB	20271228	PEXP		Calculated Patent Term Expiry (PTA 646 days and a terminal disclaimer has been filed)	
US7648574 BB	20100119	LSGT	+	granted / extensions (spc, cpc, pte)	
US7648574 BB	20091230	LSGT	PAT1	Patented Case	
US7648574 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7648574 BB	20130619	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7648574 BB	20170302	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7648574 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7648574 BB	20271031	PEXP		Calculated Patent Term Expiry	
US7658797 BB	20100209	LSGT	+	granted / extensions (spc, cpc, pte)	
US7658797 BB	20061129	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GUEVARA, TRICIA; WILLIAMS, MICHAEL T.; HUGHES, RICK; AND OTHERS; REEL/FRAME:018560/0624; SIGNING DATES FROM 20061115 TO 20061116
US7658797 BB	20061129	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC.,PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GUEVARA, TRICIA; WILLIAMS, MICHAEL T.; HUGHES, RICK; AND OTHERS; SIGNING DATES FROM 20061115 TO 20061116; REEL/FRAME:018560/0624
US7658797 BB	20100120	LSGT	PAT1	Patented Case	
US7658797 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7658797 BB	20130710	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US7658797 BB	20170302	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7658797 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7658797 BB	20280514	PEXP		Calculated Patent Term Expiry (PTA 567 days and a terminal disclaimer has been filed)	
US7666258 BB	20100223	LSGT	+	granted / extensions (spc, cpc, pte)	
US7666258 BB	20060524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WILLIAMS, MICHAEL T.; COWAN, DAVID ALLEN; GUEVARA, TRICIA; AND OTHERS; REEL/FRAME:017662/0916; SIGNING DATES FROM 20060413 TO 20060425
US7666258 BB	20060524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC.,PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WILLIAMS, MICHAEL T.; COWAN, DAVID ALLEN; GUEVARA, TRICIA; AND OTHERS; SIGNING DATES FROM 20060413 TO 20060425; REEL/FRAME:017662/0916
US7666258 BB	20100203	LSGT	PAT1	Patented Case	
US7666258 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7666258 BB	20130724	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7666258 BB	20171009	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7666258 BB	20180326	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US7666258 BB	20180326	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7666258 BB	20180326	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7666258 BB	20180417	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180223
US7666258 BB	20271230	PEXP		Calculated Patent Term Expiry (PTA 674 days and a terminal disclaimer has been filed)	
US7699929 BB	20100420	LSGT	+	granted / extensions (spc, cpc, pte)	
US7699929 BB	20100331	LSGT	PAT1	Patented Case	
US7699929 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7699929 BB	20280813	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US7744692 BB	20100629	LSGT	+	granted / extensions (spc, cpc, pte)	
US7744692 BB	20060608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : METROMONT CORPORATION, SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PENNELL JR., RICHARD; REEL/FRAME:017968/0431 EFFECTIVE DATE : 20060531
US7744692 BB	20060608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS, INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GUEVARA, TRICIA; WILLIAMS, MICHAEL T.; COWAN, DAVID A.; AND OTHERS; REEL/FRAME:017974/0143; SIGNING DATES FROM 20060413 TO 20060512
US7744692 BB	20060608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : METROMONT CORPORATION,SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PENNELL JR., RICHARD; REEL/FRAME:017968/0431 EFFECTIVE DATE : 20060531
US7744692 BB	20060608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS, INC.,PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GUEVARA, TRICIA; WILLIAMS, MICHAEL T.; COWAN, DAVID A.; AND OTHERS; SIGNING DATES FROM 20060413 TO 20060512; REEL/FRAME:017974/0143
US7744692 BB	20100609	LSGT	PAT1	Patented Case	
US7744692 BB	20101221	LSRE	CC	CERTIFICATE OF CORRECTION	
US7744692 BB	20121023	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WELLS FARGO BANK, N.A., SOUTH CAROLINA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:METROMONT CORPORATION; REEL/FRAME:029172/0780 EFFECTIVE DATE : 20101018
US7744692 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7744692 BB	20131127	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7744692 BB	20170703	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7744692 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7744692 BB	20290315	PEXP		Calculated Patent Term Expiry (PTA 1089 days and a terminal disclaimer has been filed)	
US7790302 BB	20100907	LSGT	+	granted / extensions (spc, cpc, pte)	
US7790302 BB	20100818	LSGT	PAT1	Patented Case	
US7790302 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7790302 BB	20140206	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7790302 BB	20170923	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7790302 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7790302 BB	20291211	PEXP		Calculated Patent Term Expiry	
US7820094 BB	20101026	LSGT	+	granted / extensions (spc, cpc, pte)	
US7820094 BB	20101006	LSGT	PAT1	Patented Case	
US7820094 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7820094 BB	20140326	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7820094 BB	20171115	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7820094 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7820094 BB	20291218	PEXP		Calculated Patent Term Expiry	
US7963080 BA	20110621	LSGT	+	granted / extensions (spc, cpc, pte)	
US7963080 BA	20110601	LSGT	PAT1	Patented Case	
US7963080 BA	20110601	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7963080 BA	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7963080 BA	20141119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US7963080 BA	20180628	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7963080 BA	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7963080 BA	20310225	PEXP		Calculated Patent Term Expiry	
US7964272 BB	20110621	LSGT	+	granted / extensions (spc, cpc, pte)	
US7964272 BB	20110601	LSGT	PAT1	Patented Case	
US7964272 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US7964272 BB	20141119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7964272 BB	20180628	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7964272 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US7964272 BB	20290215	PEXP		Calculated Patent Term Expiry (PTA 473 days and a terminal disclaimer has been filed)	
US8029617 BB	20111004	LSGT	+	granted / extensions (spc, cpc, pte)	
US8029617 BB	20110914	LSGT	PAT1	Patented Case	
US8029617 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
US8029617 BB	20150401	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8029617 BB	20181026	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8029617 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US8029617 BB	20291104	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8167998 BB	20120501	LSGT	+	granted / extensions (spc, cpc, pte)	
US8167998 BB	20120411	LSGT	PAT1	Patented Case	
US8167998 BB	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001

EFFECTIVE DATE : 20120918					
US8167998 BB	20160426	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8167998 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US8167998 BB	20190501	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8167998 BB	20301109	PEXP		Calculated Patent Term Expiry (PTA 56 days and a terminal disclaimer has been filed)	
US8357240 BB	20130122	LSGT	+	granted / extensions (spc, cpc, pte)	
US8357240 BB	20100304	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SWEAT, ALAN; LADELY, TRICIA G.; VANBUSKIRK, KRISTEN; SIGNING DATES FROM 20100128 TO 20100202; REEL/FRAME:024026/0550
US8357240 BB	20121229	LSGT	PAT1	Patented Case	
US8357240 BB	20160711	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8357240 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US8357240 BB	20200522	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8357240 BB	20310127	PEXP		Calculated Patent Term Expiry (PTA 365 days and a terminal disclaimer has been filed)	
US8726594 BB	20140520	LSGT	+	granted / extensions (spc, cpc, pte)	
US8726594 BB	20060505	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS, INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BOWMAN, JAY J.; REEL/FRAME:017860/0375 EFFECTIVE DATE : 20060223
US8726594 BB	20060505	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DIETRICH INDUSTRIES, INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SALAZAR, LORENZO L.; RALPH, GREGORY S.; REEL/FRAME:017860/0387 EFFECTIVE DATE : 20060407
US8726594 BB	20140430	LSGT	PAT1	Patented Case	
US8726594 BB	20170606	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8726594 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116

US8726594 BB	20310619	PEXP		Calculated Patent Term Expiry (PTA 1941 days)	
US8752348 BB	20140617	LSGT	+	granted / extensions (spc, cpc, pte)	
US8752348 BB	20140528	LSGT	PAT1	Patented Case	
US8752348 BB	20141007	LSRE	CC	CERTIFICATE OF CORRECTION	
US8752348 BB	20170703	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8752348 BB	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
US8752348 BB	20331030	PEXP		Calculated Patent Term Expiry (PTA 2805 days)	
USRE43253 E	20100520	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVA CHEMICALS INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GUEVARA, TRICIA; WILLIAMS, MICHAEL T.; COWAN, DAVID A; AND OTHERS; SIGNING DATES FROM 20060324 TO 20060517; REEL/FRAME:024413/0510
USRE43253 E	20120229	LSGT	PAT1	Patented Case	
USRE43253 E	20121031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON INC., PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVA CHEMICALS INC.; REEL/FRAME:029218/0001 EFFECTIVE DATE : 20120918
USRE43253 E	20130918	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
USRE43253 E	20170606	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
USRE43253 E	20190228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SYNTHEON HOLDINGS SPA, DISTRICT OF COLUMBIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SYNTHEON INC; REEL/FRAME:049896/0538 EFFECTIVE DATE : 20190116
WO06091792 A1	20060831	LSPB	+	published / reissued	
WO06091792 A1	20060224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680005974.2 COUNTRY OF REF DOCUMENT : CN
WO06091792 A1	20070801	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006216558 COUNTRY OF REF DOCUMENT : AU
WO06091792 A1	20070821	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2598442 COUNTRY OF REF DOCUMENT : CA
WO06091792 A1	20070823	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2006216558 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060224 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06091792 A1	20070824	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

				INFORMATION: ENTRY INTO NATIONAL PHASE	MX/A/2007/010381 COUNTRY OF REF DOCUMENT : MX
WO06091792 A1	20070824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006721032 COUNTRY OF REF DOCUMENT : EP
WO06091792 A1	20070828	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO06091792 A1	20070925	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 4253/CHENP/2007 COUNTRY OF REF DOCUMENT : IN
WO06091792 A1	20100323	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0607914 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO06091864 A2	20060831	LSPB	+	published / reissued	
WO06091864 A2	20060224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680006096.6 COUNTRY OF REF DOCUMENT : CN
WO06091864 A2	20070816	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2598315 COUNTRY OF REF DOCUMENT : CA
WO06091864 A2	20070817	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006216537 COUNTRY OF REF DOCUMENT : AU
WO06091864 A2	20070817	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/010039 COUNTRY OF REF DOCUMENT : MX
WO06091864 A2	20070828	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO06091864 A2	20070829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006748254 COUNTRY OF REF DOCUMENT : EP
WO06091864 A2	20070906	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2006216537 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060224 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06091864 A3	20100323	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0607916 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO06091882 A2	20060831	LSPB	+	published / reissued	
WO06091882 A2	20060224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680011602.0 COUNTRY OF REF DOCUMENT : CN
WO06091882 A2	20070809	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2912/KOLNP/2007 COUNTRY OF REF DOCUMENT : IN
WO06091882 A2	20070816	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2598172 COUNTRY OF REF DOCUMENT : CA

WO06091882 A2	20070816	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/009959 COUNTRY OF REF DOCUMENT : MX
WO06091882 A2	20070817	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006216460 COUNTRY OF REF DOCUMENT : AU
WO06091882 A2	20070817	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006736128 COUNTRY OF REF DOCUMENT : EP
WO06091882 A2	20070828	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO06091882 A2	20070906	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2006216460 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060224 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06091882 C1	20100323	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0607377 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO06102523 A2	20060928	LSPB	+	published / reissued	
WO06102523 A2	20060322	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680009237.X COUNTRY OF REF DOCUMENT : CN
WO06102523 A2	20070829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3177/KOLNP/2007 COUNTRY OF REF DOCUMENT : IN
WO06102523 A2	20070907	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006739422 COUNTRY OF REF DOCUMENT : EP
WO06102523 A2	20070917	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2601642 COUNTRY OF REF DOCUMENT : CA
WO06102523 A2	20070918	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/011485 COUNTRY OF REF DOCUMENT : MX
WO06102523 A2	20070920	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006226916 COUNTRY OF REF DOCUMENT : AU
WO06102523 A2	20070921	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2008503195 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06102523 A2	20070925	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO06102523 A2	20071011	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2006226916 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060322 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

WO06102523 A2	20071022	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : RU
WO06102523 A3	20111018	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0609690 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20070921
WO06102634 A2	20060928	LSPB	+	published / reissued	
WO06102634 A3	20070905	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006226764 COUNTRY OF REF DOCUMENT : AU
WO06102634 A3	20070913	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2600998 COUNTRY OF REF DOCUMENT : CA
WO06102634 A3	20070920	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2008503254 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06102634 A3	20070921	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/011640 COUNTRY OF REF DOCUMENT : MX
WO06102634 A3	20070925	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO06102634 A3	20070925	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006739629 COUNTRY OF REF DOCUMENT : EP
WO06102634 A3	20070927	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2006226764 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060322 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06102634 A3	20071022	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : RU
WO06102634 A3	20071022	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 4709/CHENP/2007 COUNTRY OF REF DOCUMENT : IN
WO06102634 A3	20111018	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0609706 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20070921
WO07111850 A2	20071004	LSPB	+	published / reissued	
WO07111850 A3	20080826	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007229836 COUNTRY OF REF DOCUMENT : AU
WO07111850 A3	20080902	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2644416 COUNTRY OF REF DOCUMENT : CA
WO07111850 A3	20080908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 3674/KOLNP/2008 COUNTRY OF REF DOCUMENT : IN
WO07111850 A3	20080912	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

				INFORMATION: ENTRY INTO NATIONAL PHASE	MX/A/2008/011768 COUNTRY OF REF DOCUMENT : MX
WO07111850 A3	20080918	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2007229836 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20070316 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO07111850 A3	20080919	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009501470 COUNTRY OF REF DOCUMENT : JP
WO07111850 A3	20080922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780010237.6 COUNTRY OF REF DOCUMENT : CN
WO07111850 A3	20080922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007753307 COUNTRY OF REF DOCUMENT : EP
WO07111850 A3	20080923	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO07111850 A3	20110719	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0709629 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20080917
WO07111859 A2	20071004	LSPB	+	published / reissued	
WO07111859 A3	20080829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007229845 COUNTRY OF REF DOCUMENT : AU
WO07111859 A3	20080902	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2644417 COUNTRY OF REF DOCUMENT : CA
WO07111859 A3	20080911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/011645 COUNTRY OF REF DOCUMENT : MX
WO07111859 A3	20080922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007753364 COUNTRY OF REF DOCUMENT : EP
WO07111859 A3	20080923	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO07111859 A3	20080925	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2007229845 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20070316 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO08137407 A1	20081113	LSPB	+	published / reissued	
WO08137407 A1	20091020	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2688668 COUNTRY OF REF DOCUMENT : CA
WO08137407 A1	20091103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2009/011890 COUNTRY OF REF DOCUMENT : MX
WO08137407 A1	20091105	LSNE	NENP	NON-ENTRY INTO THE NATIONAL	REF COUNTRY CODE : DE

WO08137407 A1	20100714	LSNE	-122	PHASE EP: PCT APPLICATION NON- ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08754953 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO10090933 A1	20100812	LSPB	+	published / reissued	
WO10090933 A1	20110805	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO10090933 A1	20120307	LSNE	-122	EP: PCT APPLICATION NON- ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 10738980 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: BRIDGE CONCRETE ROAD SLAB **EXPANSION JOINT** SEAL - HAS ELASTIC UNIT BETWEEN REARWARD REINFORCED TOP PARTS OF VERTICAL PLATES

Abstract: A profiled elastic transitional unit, between upright metal plates with a back lining of site concrete, is used for sealing for **expansion joints** between concrete or similar roadway slabs. The system is used esp. on bridges. The two plates (32) are made up from complementary non-linearly de-formed pairs of upper (38A, 42A) and lower sections (38B, 42B), with a lengthways **joint** seam. The top sections, flush with the road surface, hold the elastic unit (47) between them, and have rearward-aligned reinforcing units (48) on their rear side.

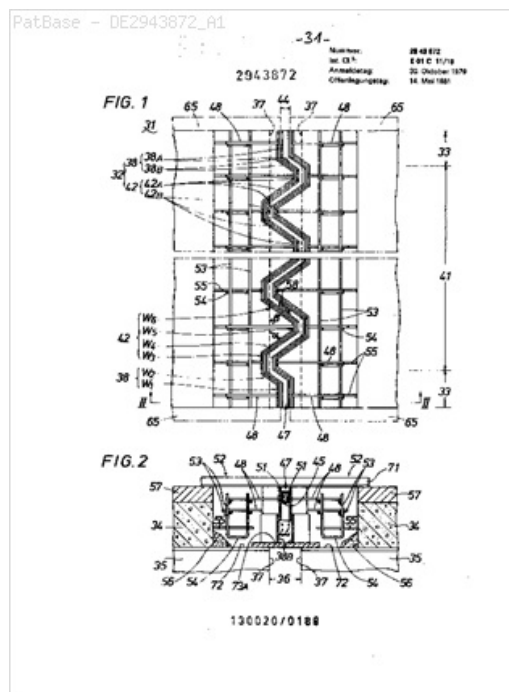
Classifications:

International (IPC 8-9): E01D19/06 (Advanced/Invention);
E01D19/00 (Core/Invention)

International (IPC 1-7): E01C11/10 E01D19/06

CPC: E01D19/06

European: E01D19/06



Family:

Publication number	Publication date	Application number	Application date
DE2943872 A1	19810514	DE19792943872	19791030
DE2943872 C2	19871015	DE19792943872	19791030

Priority:

DE19792943872 19791030

Probable Assignee: ARAI MOTONOSUKE

Assignee(s): (std): ARAI MOTONOSUKE

Assignee(s): ARAI MOTONOSUKE ASHIYA HYOGO JP

Inventor(s): (std): ARAI MOTONOSUKE

Inventor(s): ARAI MOTONOSUKE ASHIYA HYOGO JP

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE2943872 A1	19810514	LSPB	+	published / reissued	
DE2943872 A1	19811008	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE2943872 C2	19871015	LSGT	+	granted / extensions (spc, cpc, pte)	
DE2943872 C2	19871015	LSGT	+D2	GRANT AFTER EXAMINATION	
DE2943872 C2	19880414	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	

Title: TRANSPORTABLE BAUSTELLEN- UND BAUWEGEBEFESTIGUNG PORTABLE SITES AND BAUWEGEBEFESTIGUNG (Machine translation)

Abstract: Source: DE2410331A1 [DE] Patentansprüche: 1 ransportable Baustellen- und Bauwegbefestigung fuer unbefestigten Untergrund, bestehend aus einzelnen Platten, vorzugsweise aus Aluminium, gekennzeichnet durch eine Grundplatte (1) mit auf der Vorder- und Rueckseite um 90° versetzten Stabilisierungsrippen (2) und in den Ecken verstaerkten Verbindungsaugen (3) 2.

Machine translation: Claim: 1 ransportable construction and Bauwegbefestigung for unpaved surfaces, consisting of individual plates, preferably made of aluminum, comprising a base plate (1) with the front and back of 90° staggered stabilizing ribs (2) and in the corners reinforced connecting eyes (3) 2.

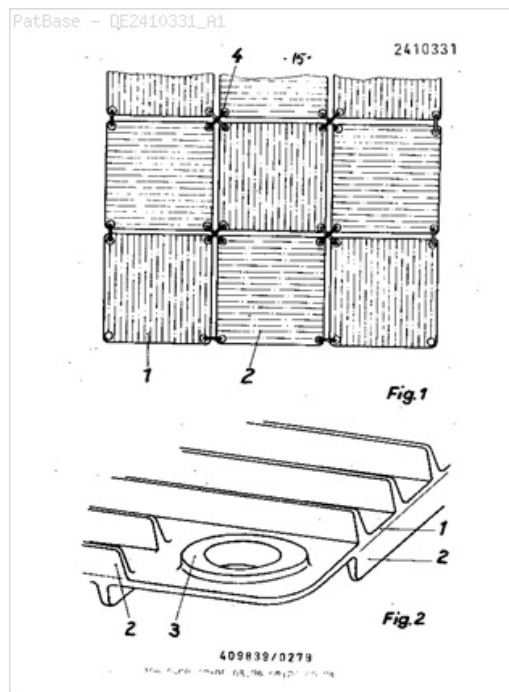
Classifications:

International (IPC 8-9): E01C5/16 E01C9/08 (Advanced/Invention); E01C5/00 E01C9/00 (Core/Invention)

International (IPC 1-7): E01C5/16 E01C9/08

CPC: E01C9/083

European: E01C9/08B



Family:

Publication number	Publication date	Application number	Application date
DD128827 T	19771214	DD19730171416	19730608
DE2410331 A1	19740926	DE19742410331	19740305
PL98601 P	19780531	PL19740169756	19740323

Priority:

DD19730169668 19730323 DD19730171416 19730608

Probable Assignee: MANSFELD KOMBINAT W PIECK VEB

Assignee(s): (std): MANSFELD KOMBINAT W PIECK VEB ; MANSFELD W PIECK VEB ; NOACK KLAUS ; PALA ERICH ; WALTER HANS GEORG ; GRIMM ERNST

Assignee(s): GRIMM ERNST DL ; WALTER HANS GEORG DL ; PALA ERICH DL ; VEB MANSFELD KOMBINAT WILHELM PIECK X 4250 LUTHERSTADT EISLEBEN ; NOACK KLAUS DL

Inventor(s): (std): GRIMM ERNST DIPL ING ; WALTER HANS GEORG DIPL ING ; PALA ERICH ; NOACK KLAUS DR ING ; GRIMM ERNST ; WALTER HANS GEORG ; NOACK KLAUS

Inventor(s): PALA ERICH X 7030 LEIPZIG ; NOACK KLAUS DR ING X 7270 DELITZSCH ; WALTER HANS GEORG DIPL ING X 7022 LEIPZIG ; GRIMM ERNST DIPL ING X 7030 LEIPZIG ; GRIMM ERNST DL ; WALTER HANS GEORG DL ; PALA ERICH DL ; NOACK KLAUS DL

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DD128827 T	19771214	LSGT	+	granted / extensions (spc, cpc, pte)	
DD128827 T	19910608	PEXP		Calculated Patent Term Expiry	
DE2410331 A1	19740926	LSPB	+	published / reissued	
DE2410331 A1	19780420	LSSES	+OD	REQUEST FOR EXAMINATION	
DE2410331 A1	19820121	LSRV	-8131	REJECTION	
PL98601 P	19780531	LSGT	+	granted / extensions (spc, cpc, pte)	

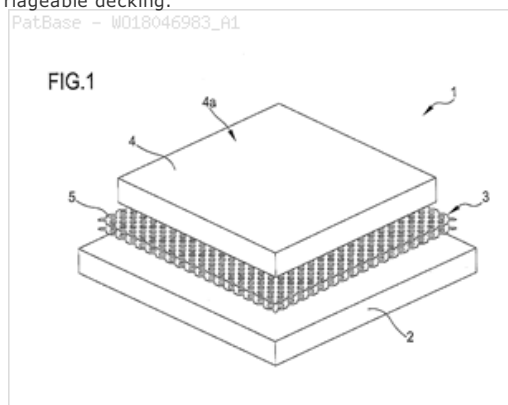
Title: BIDIRECTIONAL-HEATING PREFABRICATED CONTINUOUS COMPOSITE **FLOORING**

Abstract: A bidirectional-heating prefabricated continuous composite paving (1; 100; 150), preferably deicing, which includes a layered artifact in turn composed of a flexible and/or elastically yielding base substrate (2), made of an at least partly conductive material and suitable to be placed on a reference surface, thermo-heating means (3), arranged above the base substrate (2) and a covering and protection layer (4; 103; 153), made of an at least partly conductive material, arranged above the thermo-heating means (3) in such a way as to form an overall sandwich structure and provided with an outer facing upwardly surface (4a) which provides for a heating and deicing walkable, bicycle and/or carriageable decking.

Classifications:

International (IPC 8-9): A01K1/015 E01C11/26 E04F15/02 E04F15/10 F24D13/02 H05B3/34 H05B3/36 (Advanced/Invention)

CPC: E01C11/265 A01K1/0158 H05B3/34 H05B2203/007 H05B2214/02 E01C5/18 E01C5/22

**Family:**

Publication number	Publication date	Application number	Application date
EP3510201 A1	20190717	EP20160791673	20160908
WO18046983 A1	20180315	WO20161B55359	20160908

Priority:

WO20161B55359 20160908

Probable Assignee: DAMICO PIERMATTEO

Assignee(s): (std): DAMICO PIERMATTEO ; REDHEAT SRL START UP

Assignee(s): D AMICO PIERMATTEO

Inventor(s): (std): D AMICO PIERMATTEO ; DAMICO PIERMATTEO

Agent(s): CONTADIN GIORGIO; CONTADIN GIORGIO ET AL

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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
EP3510201 A1	20190717	LSPB	+	published / reissued	
EP3510201 A1	20190717	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190328
WO18046983 A1	20180315	LSPB	+	published / reissued	
WO18046983 A1	20190309	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO18046983 A1	20190412	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2016791673 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20190408

Title: CONSTRUCTION AND/OR APPLICATION IN RELATION TO THE GENERATION OR THE USE OF PRESSURES, FORCES, FLOWS AND MOVEMENTS IN AND BY MEANS OF HYDRAULIC OR HYDRO-PNEUMATIC SYSTEMS.

Abstract: The main object of this invention is the generation of pressures, forces, flows and motion and several methods are given in principle concerning the application of the hydraulic scheme as well as the constructions which are especially suitable for the generation. Characteristic for these hydraulic schemes are the consistent pressure or volume controlled schemes and the flexible adjustment between the motion of the piston and the motion of the hydraulic flow. With this a universal rotating control valve is important; characteristic of it is the adjustability of the relative opening times in different phases. Further a mass motion reactor which transforms kinetic energy into pressure. The applications are mainly related to transport under influence of shock, asymmetric vibrations, dynamic effects by asymmetric vibrations and effects on the frictional resistance by vibrations and savings in and simplification of constructions by replacement of static forces which require a frame through dynamic forces where the reaction is supplied by the inertia of a mass, where this is useful for the speed, and the simplicity is the pneumatic drive combined with the hydraulic drive.

Classifications:

International (IPC 8-9): B06B1/18 B23P19/02 B26D7/08 B28B1/08 B30B15/22 E02D5/76 E02D5/80 E02D7/00 E02D7/10 E02D7/24 E04G21/12 E21B4/18 E21B47/00 E21B7/26

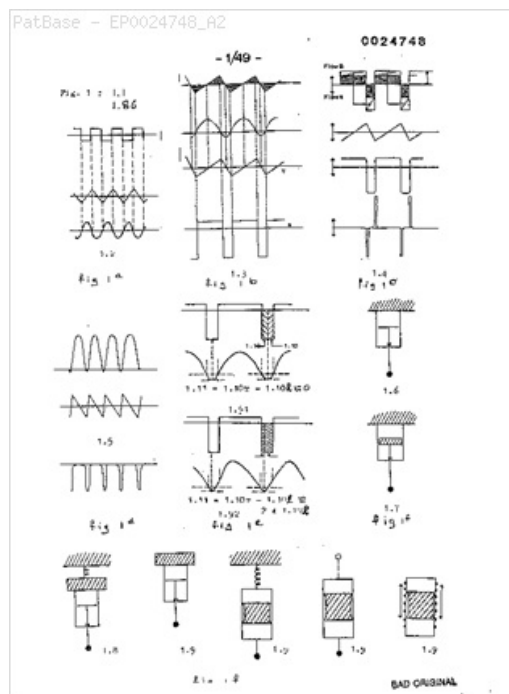
F15B21/12 (Advanced/Invention);

B06B1/18 B23P19/02 B26D7/08 B28B1/08 B30B15/16 E02D5/74 E02D5/80 E02D7/00 E04G21/12 E21B4/00 E21B47/00 E21B7/00 F15B21/00 (Core/Invention)

International (IPC 1-7): B02C1/00 B06B1/00 B06B1/18 B06B1/20 B21J9/12 B28B3/00 B30B15/22 E01C19/30 E02D11/00 E02D7/00 E02D7/10 E02D7/18 E04G21/12 F01B11/04 F15B1/02 F15B21/12 F16H43/00 F16L1/02

CPC: B06B1/183 F15B21/125 B23P19/027 B26D7/08 B30B15/22 B28B1/08 E02D5/76 E02D5/808 E02D7/00 E02D7/24 E21B4/18 E21B7/26 E21B47/00 E02D7/10 E04G21/12 F15B21/12

European: B06B1/18B B23P19/027 B23P19/02D B23P19/033 B26D7/08 B28B1/08 B30B15/22 E02D5/76 E02D5/80F E02D7/00 E02D7/10 E02D7/24 E04G21/12 E21B4/18 E21B47/00 E21B7/26 F15B21/12 F15B21/12B



Family:

Publication number	Publication date	Application number	Application date
EP0024748 A2	19810311	EP19800200114	19800208
EP0024748 A3	19810826	EP19800200114	19800208
NL7900219 A	19800715	NL19790000219	19790111
NL7900988 A	19800812	NL19790000988	19790208
NL7901395 A	19800826	NL19790001395	19790222
NL7904427 A	19800715	NL19790004427	19790606
NL7904566 A	19801215	NL19790004566	19790611
NL7906784 A	19801215	NL19790006784	19790912
NL8002517 A	19810901	NL19800002517	19800501
NL8100028 A	19810901	NL19810000028	19810106

Priority:

NL19790000219 19790111 NL19790000988 19790208 NL19790001395 19790222
 NL19790004427 19790606 NL19790004566 19790611 NL19790006784 19790912
 EP19800200114 19800208

Probable Assignee: PROWECO BV

Assignee(s): (std): PROWECO BV

Assignee(s): PROWECO B V ; PROWECO B V POSTBUS 3106 TE 6202 NC MAASTRICHT

Inventor(s): (std): TEERLING EPPENS HARMANNA REINA ; TEERLING LEONARD ; VAN DEN BERG JOHANNES VINCENTI

Inventor(s): VAN DEN BERG JOHANNES VINCENTIUS

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP0024748 A2	19810311	LSPB	+	published / reissued	
EP0024748 A3	19820120	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE

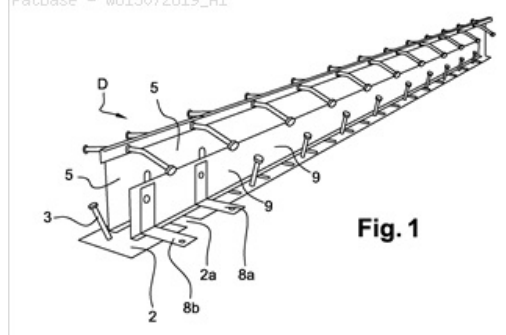
						: 19811029
EP0024748 A3	19840502	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19820302	
EP0024748 A3	19840530	LSRE	D18D	APPLICATION DEEMED TO BE WITHDRAWN (DELETED)		
EP0024748 A3	19850508	LSDW	-R18D	APPLICATION DEEMED TO BE WITHDRAWN (CORRECTED)	EFFECTIVE DATE : 19820901	
NL7900219 A	19800715	LSPB	+	published / reissued		
NL7900219 A	19810901	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL7900988 A	19800812	LSPB	+	published / reissued		
NL7900988 A	19800825	LSES	+A1A	A REQUEST FOR SEARCH OR AN INTERNATIONAL-TYPE SEARCH HAS BEEN FILED		
NL7900988 A	19821001	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL7901395 A	19800826	LSPB	+	published / reissued		
NL7901395 A	19800910	LSES	+A1B	A SEARCH REPORT HAS BEEN DRAWN UP		
NL7901395 A	19821001	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL7904427 A	19800715	LSPB	+	published / reissued		
NL7904427 A	19820201	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL7904566 A	19801215	LSPB	+	published / reissued		
NL7904566 A	19850201	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL7906784 A	19801215	LSPB	+	published / reissued		
NL7906784 A	19820503	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL8002517 A	19810901	LSPB	+	published / reissued		
NL8002517 A	19830103	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED		
NL8100028 A	19810901	LSPB	+	published / reissued		

Title: FORMWORK FOR CONCRETE SLABS

Abstract: The formwork comprises first and second horizontal support bases shaped and arranged to have a plurality of projecting forms and cut-outs capable of intermeshing by means of engagement, said support bases receiving rods forming concrete sockets. The first horizontal support base (1) receives, for attachment, first pairs of brackets (4a) (4b) arranged and spaced apart having a vertical branch allowing the height-adjustable attachment of a vertical plate (5) forming a height-adjustment system. Said second support base (2) is arranged with second pairs of brackets (8a) (8b) arranged opposite said first pairs of brackets, being arranged attached to said second support base. Said second pairs of brackets allow, by means of the vertical branches thereof, the attachment of a fixed-position vertical counterplate (9). The plate (5) is arranged on the length thereof with oblong holes (5a) established on one portion of the length thereof, and the counterplate (9) has openings (9a) for the inclusion of a means (6) in the form of a bolt for adjusting and attaching the plate in relation to the counterplate.

Classifications:**International (IPC 8-9):** E01C 11/14 (Advanced/Invention)**CPC:** E01C 11/14 E01C 11/08

PatBase - WO13072619_A1

**Family:**

Publication number	Publication date	Application number	Application date
DE602011010915 D1	20141211	DE201160010915T	20111117
EP2594693 A1	20130522	EP20110306509	20111117
EP2594693 B1	20141029	EP20110306509	20111117
ES2527847 T3	20150130	ES20110306509T	20111117
PT2594693 T	20150206	PT20110306509T	20111117
WO13072619 A1	20130523	WO2012FR52617	20121114

Priority:

EP20110306509 20111117

Probable Assignee: SIFLOOR**Assignee(s):** (std): DE RIVAS ARNAUD ; SIFLOOR**Inventor(s):** (std): DE RIVAS ARNAUD**Agent(s):** DREISS PATENTANWALTE PARTG MBB; DUPUIS FRANCOIS; ISERN JORGE; DUPUIS FRANCOIS ET AL

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
EP2594693 A1	20130522	LSPB	+	published / reissued	
EP2594693 A1	20130821	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130711
EP2594693 A1	20140129	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140107
EP2594693 A1	20140618	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20140523
EP2594693 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151109 YEAR OF FEE PAYMENT : 5
EP2594693 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20151118 YEAR OF FEE PAYMENT : 5
EP2594693 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20151026 YEAR OF FEE PAYMENT : 5

EP2594693 A1	20160229	LSFE	+PGFP	EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20151019 YEAR OF FEE PAYMENT : 5
EP2594693 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 5
EP2594693 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151125 YEAR OF FEE PAYMENT : 5
EP2594693 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160225 YEAR OF FEE PAYMENT : 5
EP2594693 B1	20141029	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2594693 B1	20141029	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP2594693 B1	20141031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2594693 B1	20141115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 693683 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20141115
EP2594693 B1	20141119	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP2594693 B1	20141211	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011010915 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141211
EP2594693 B1	20150128	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : RO REF LEGAL EVENT CODE : EPE
EP2594693 B1	20150130	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2527847 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20150130
EP2594693 B1	20150315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 693683 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20141029
EP2594693 B1	20150317	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 : 4
EP2594693 B1	20150318	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20141029
EP2594693 B1	20150325	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2594693 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				INFORMATION FROM NATIONAL OFFICE TO EPO]	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150228
EP2594693 B1	20150430	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 : 20150129
EP2594693 B1	20150430	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 : 20141029
EP2594693 B1	20150430	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 : 20141029
EP2594693 B1	20150430	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 : 20141029
EP2594693 B1	20150529	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 : 20141029
EP2594693 B1	20150529	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 : 20141029
EP2594693 B1	20150529	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 : 20141029
EP2594693 B1	20150529	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 : 20150130
EP2594693 B1	20150529	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 : 20141029
EP2594693 B1	20150529	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 : 20141029
EP2594693 B1	20150529	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

				EPO]	LAPSED DATE : 20141029
EP2594693 B1	20150529	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 : 20141029
EP2594693 B1	20150630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2594693 B1	20150730	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011010915 COUNTRY OF REF DOCUMENT : DE
EP2594693 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
EP2594693 B1	20150731	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 : 20141029
EP2594693 B1	20150731	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 : 20141029
EP2594693 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 : 20141029
EP2594693 B1	20150731	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 : 20141029
EP2594693 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
EP2594693 B1	20150731	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 : 20141029
EP2594693 B1	20150826	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2594693 B1	20151007	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150730
EP2594693 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 : 20141117
EP2594693 B1	20160225	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP

EP2594693 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 : 20141029
EP2594693 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 : 20141029
EP2594693 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 : 20141029
EP2594693 B1	20160727	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20151117
EP2594693 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 : 20141029
EP2594693 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 : 20141029
EP2594693 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 : 20111117
EP2594693 B1	20160729	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 : 20141117
EP2594693 B1	20161031	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 : 20151117
EP2594693 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
EP2594693 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
EP2594693 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
EP2594693 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20161130 YEAR OF FEE PAYMENT : 6

EP2594693 B1	20170228	LSFE	+PGFP	NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20161125 YEAR OF FEE PAYMENT : 6
EP2594693 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20161102 YEAR OF FEE PAYMENT : 6
EP2594693 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20161018 YEAR OF FEE PAYMENT : 6
EP2594693 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20161117 YEAR OF FEE PAYMENT : 6
EP2594693 B1	20171129	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20171024 YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171116 YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171227 YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20171017 YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171117 YEAR OF FEE PAYMENT : 7
EP2594693 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20171120 YEAR OF FEE PAYMENT : 7
EP2594693 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 : 20141029
EP2594693 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 : 20141029
EP2594693 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181112 YEAR OF FEE PAYMENT : 8
EP2594693 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20181018 YEAR OF FEE PAYMENT : 8

EP2594693 B1	20190131	LSFE	+PGFP	EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20181030 YEAR OF FEE PAYMENT : 8
EP2594693 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181220 YEAR OF FEE PAYMENT : 8
EP2594693 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 : 8
EP2594693 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20181126 YEAR OF FEE PAYMENT : 8
EP2594693 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20181116 YEAR OF FEE PAYMENT : 8
EP2594693 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20191115 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20191031 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20191018 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20191223 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20191122 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191125 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20191126 YEAR OF FEE PAYMENT : 9
EP2594693 B1	20311117	PEXP		Calculated Patent Term Expiry	
ES2527847 T3	20150130	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2527847 T3	20311117	PEXP		Calculated Patent Term Expiry	
PT2594693 T	20150206	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2594693 T	20311117	PEXP		Calculated Patent Term Expiry	
WO13072619 A1	20130523	LSPB	+	published / reissued	
WO13072619 A1	20140519	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO13072619 A1	20150121	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12797950 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: STRUCTURAL JOINT

Abstract: The present invention relates to a **expansion joint** to bridge an **expansion** gap between two parts of concrete slabs used in **floor** construction, especially in the manufacture of concrete **floors** such as for example in industrial **floors**. Such **expansion joints** are evidently required to take up the inevitable shrinkage process of the concrete and to assure that the **floor** elements can expand or contract such as for example occur by temperature fluctuations and resulting in a horizontal displacement of the **floor** panels vis-a-vis one another.

Classifications:

International (IPC 8-9): E01C E01C11/02 E01C11/04 E01C11/08 E01C11/14 E01D19/06 E04B1/68 (Advanced/Invention);

E01C11/14 (Advanced/Non-invention);

E01C11/00 (Core/Invention);

E01C (Subclass/Invention)

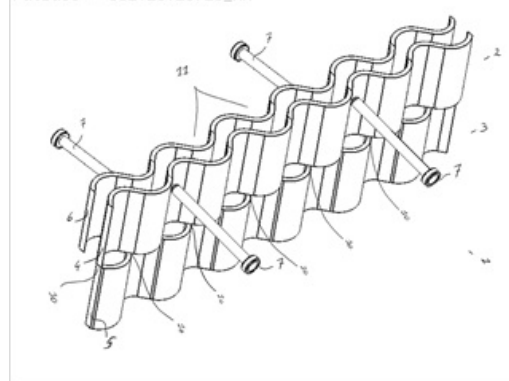
CPC: E01C11/08 E01C11/14 Y10T403/21 E01D19/06 E01C11/04

US: 1/1 403/28

JP F-Term: 2D051 2D051/AC04 2D051/AF11 2D051/FA15 2D059 2D059/GG45

JP F-Index: E01C11/02/A E01C11/04 E01D19/06

PatBase - US2015023725_AA



Family:

Publication number	Publication date	Application number	Application date
AR090164 AA	20141022	AR2013P100591	20130226
AU2013225087 AA	20140925	AU20130225087	20130227
AU2013225087 BB	20160804	AU20130225087	20130227
AU2016244208 AA	20161103	AU20160244208	20161011
AU2016244208 BB	20180315	AU20160244208	20161011
BR112014021002 A2	20170620	BR20141121002	20130227
BR112014021002 A8	20170718	BR20141121002	20130227
CA2865188 AA	20140821	CA20132865188	20130227
CA2865188 C	20171205	CA20132865188	20130227
CA2984834 AA	20130906	CA20132984834	20130227
CL2014002267 A1	20150220	CL20140002267	20140826
CL55363 B	20180126	CL20140002267	20140826
CN104169498 A	20141126	CN201380011115	20130227
CN104169498 B	20170222	CN201380011115	20130227
CO7141448 A2	20141212	CO20140187219	20140826
CR20140393 A	20150206	CR20140000393	20140821
DE602013001706 D1	20150625	DE201360001706T	20130227
DE602013045795 D1	20181122	DE201360045795T	20130227
DK2729619 T3	20150713	DK20130708716T	20130227
DK2927370 T3	20190304	DK20150161435T	20130227
EA028907 B1	20180131	EA20140091542	20130227
EA033943 B1	20191212	EA20170092015	20130227
EA201491542 A1	20150730	EA20140091542	20130227
EA201491542 A8	20160531	EA20140091542	20130227
EA201792015 A1	20180228	EA20170092015	20130227
EA201992095 A1	20200129	EA20190092095	20130227
EP2729619 A2	20140514	EP20130708716	20130227
EP2729619 B1	20150506	EP20130708716	20130227
EP2729619 B8	20160323	EP20130708716	20130227
EP2927370 A1	20151007	EP20150161435	20130227
EP2927370 B1	20181024	EP20150161435	20130227
EP2930268 A1	20151014	EP20150161433	20130227
ES2541585 T3	20150722	ES20130708716T	20130227
ES2541585 T8	20160505	ES20130708716T	20130227
ES2695726 T3	20190110	ES20150161435T	20130227
GB201203314 A0	20120411	GB20120003314	20120227
GB201215277 A0	20121010	GB20120015277	20120828
GB201220095 A0	20121219	GB20120020095	20121108
GC7380 A	20180318	GC2013P023656	20130223
HK1204484 A1	20151120	HK20150104993	20150526
HK1204484 B	20180309	HK20150104993	20150526
HR20150709 T1	20150911	HR20150000709	20150701
HR20150709 T8	20160506	HR20150000709	20150701
HR20181870 T1	20190111	HR20180001870	20181109
HU026913 T2	20160829	HU20130708716T	20130227
ID201601504 A	20160318	ID2014P0005797	20130227
IL234198 A0	20141030	IL20130234198	20130227

IL234198 A1	20180531	IL20130234198	20130227
IL258987 A0	20180628	IL20130258987	20130227
IL258987 A1	20200331	IL20130258987	20130227
IN07805DN2014 A	20150515	IN2014DN07805	20140918
JP2015513016 T2	20150430	JP20140558151T	20130227
JP6180445 B2	20170816	JP20140558151T	20130227
KR102106877 B1	20200507	KR20147025555	20130227
KR20150008379 A	20150122	KR20147025555	20130227
KR20200049885 A	20200508	KR20207012142	20130227
LT2927370 T	20181210	LT20150161435T	20130227
MK5786 T1	20151231	MK20150000320T	20150626
MX2014010246 A1	20150605	MX20140010246	20130227
MX354061 B	20180209	MX20140010246	20130227
MY164994 A	20180228	MY20140002359	20130227
NI201400097 A	20150309	NI20140000097	20140826
NZ629939 A	20151030	NZ20130629939	20130227
PE20142419 A1	20150111	PE20140001317	20130227
PE24192014 A1	20150111	PE20140001317	20130227
PL2729619 T3	20151030	PL20130708716T	20130227
PL2927370 T3	20190329	PL20150161435T	20130227
PT2729619 T	20150826	PT20130708716T	20130227
PT2927370 T	20181127	PT20150161435T	20130227
SG11201405217T A1	20140926	SG20141105217	20130227
SI2729619 T1	20150930	SI20130030046T	20130227
SI2927370 T1	20181231	SI20130031251T	20130227
TR201507935 T4	20150821	TR20150007935T	20130227
TR201817092 T4	20181221	TR20180017092T	20130227
US2015023725 AA	20150122	US20130380803	20130227
US2018371703 AA	20181227	US20180101810	20180813
US2019257040 AA	20190822	US20190402528	20190503
US10077533 BB	20180918	US20130380803	20130227
US10323359 BB	20190618	US20180101810	20180813
WO13127812 A2	20130906	WO2013EP53849	20130227
WO13127812 A3	20131121	WO2013EP53849	20130227
ZA201406312 A	20160831	ZA20140006312	20140828

Priority:

GB20120003314 20120227	GB20120015277 20120828	GB20120020095 20121108
AU20130225087 20130227	EP20130708716 20130227	CA20132865188 20130227
EP20150161435 20130227	WO2013EP53849 20130227	US20140380803 20140825
AU20160244208 20161011	CA20172865188 20171116	US20180101810 20180813
US20190402528 20190503		

Probable Assignee: HENGELHOEF CONCRETE JOINTS NV

Assignee(s): (std): HENGELHOEF CONCRETE JOINTS MFG N V ; HENGELHOEF CONCRETE JOINTS MFG NV ; HENGELHOEF CONCRETE JOINTS NV ; HENGELHOEF CONCRETE JOINT MFG NV

Assignee(s): HENGELHOEF CONCRETE JOINTS MANUFACTURING NV ; HENGELHOEF CONCRETE JOINTS MFG NVHENGELHOEFSTRAAT 158ZONE B1B-3600GENKBE ; WINTERS RENE ALICE P ; MEUWISSEN DIRK ; KLINGELEERS ALBERT CHARLES

Inventor(s): (std): RENE WINTERS ; WINTERS RENE ALICE P ; WINTERS RENE ; RENE ALICE P WINTERS ; MEUWISSEN DIRK ; KLINGELEERS ALBERT CHARLES ; DIRK MEUWISSEN ; ALBERT CHARLES KLINGELEERS ; KLINGELEERS ALBERT CHARLES AC ; MEUWISSEN DIRK D

Inventor(s): MEUWISSEN DIRKBE ; KLINGELEERS ALBERT CHARLESBE ; CHARLES ALBERT KLINGELEERS

Agent(s): COLLISON AND CO; SIM AND MCBURNEY; AIRD AND BERLIS IP PARTNERSHIP LTD; AIRD AND MCBURNEY LP; DELLAFIORI MORALES ENRIQUE; JAIME EDUARDO DELGADO VILLEGAS; LAENEN BART ROGER ALBERT; LC PATENTS; LAZCANO JESUS; SAEZ ANA; KADASA LAW FIRM; CLT PATENT AND TRADEMARK HK LTD; MAULITTA PRAMULASARI SPD; DR SHLOMO COHEN AND CO; SHOJI TAKASHI; SUKENOBU YURIKO; FILIZ ARK; HANDE MUMCUOGLU; DINSMORE AND SHOHL LLP; LAENEN BART

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 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
AR090164 AA	20141022	LSPB	+	published / reissued	
AU2013225087 AA	20140925	LSPB	+	published / reissued	
AU2013225087 AA	20160317	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: AMEND THE NAME OF THE INVENTOR TO READ MEUWISSEN, DIRK; KLINGELEERS, ALBERT CHARLES AND WINTERS, RENE ALICE P.

AU2013225087 AA	20161208	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2013225087 BB	20160804	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2013225087 BB	20330227	PEXP		Calculated Patent Term Expiry	
AU2016244208 AA	20161103	LSPB	+	published / reissued	
AU2016244208 BB	20180315	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2016244208 BB	20180712	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2016244208 BB	20361011	PEXP		Calculated Patent Term Expiry	
BR112014021002 A2	20170620	LSPB	+	published / reissued	
CA2865188 AA	20140821	LSPB	+	published / reissued	
CA2865188 AA	20150304	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150218
CA2865188 C	20171205	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2865188 C	20330227	PEXP		Calculated Patent Term Expiry	
CA2984834 AA	20130906	LSPB	+	published / reissued	
CA2984834 AA	20171121	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20171107
CL2014002267 A1	20150220	LSPB	+	published / reissued	
CL55363 B	20180126	LSGT	+	granted / extensions (spc, cpc, pte)	
CL55363 B	20340826	PEXP		Calculated Patent Term Expiry	
CN104169498 A	20141126	LSPB	+	published / reissued	
CN104169498 A	20141126	LSPB	+C06	PUBLICATION	
CN104169498 A	20160525	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	
CN104169498 B	20170222	LSGT	+	granted / extensions (spc, cpc, pte)	
CN104169498 B	20170222	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN104169498 B	20330227	PEXP		Calculated Patent Term Expiry	
CO7141448 A2	20141212	LSPB	+	published / reissued	
CR20140393 A	20150206	LSPB	+	published / reissued	
DE602013001706 D1	20160204	LSOP	R026	OPPOSITION FILED AGAINST PATENT	
DE602013001706 D1	20190418	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV, GENK, BE OLDPARTY : HENGELHOEF CONCRETE JOINTS MANUFACTURING NV, GENK, BE
DK2729619 T3	20150713	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2729619 T3	20330227	PEXP		Calculated Patent Term Expiry	
DK2927370 T3	20190304	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2927370 T3	20330227	PEXP		Calculated Patent Term Expiry	
EA028907 B1	20180131	LSGT	+	granted / extensions (spc, cpc, pte)	
EA028907 B1	20330227	PEXP		Calculated Patent Term Expiry	
EA033943 B1	20191212	LSGT	+	granted / extensions (spc, cpc, pte)	
EA033943 B1	20330227	PEXP		Calculated Patent	

Term Expiry					
EA201491542 A1	20150730	LSPB	+	published / reissued	
EA201792015 A1	20180228	LSPB	+	published / reissued	
EA201992095 A1	20200129	LSPB	+	published / reissued	
EP2729619 A2	20140514	LSPB	+	published / reissued	
EP2729619 A2	20140514	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20131218
EP2729619 A2	20150107	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20141209
EP2729619 A2	20160331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20160212 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160210 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160229 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20160211 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20160222 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20160126 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160218 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160218 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20160121 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT : FI

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20160211 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160218 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20160210 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20160203 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20160225 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20160126 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI PAYMENT DATE : 20160125 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20160122 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 4
EP2729619 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 4
EP2729619 B1	20150506	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2729619 B1	20150506	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2729619 B1	20150515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2729619 B1	20150603	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2729619 B1	20150615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 725801 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150615

EP2729619 B1	20150625	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602013001706 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150625
EP2729619 B1	20150706	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : RO REF LEGAL EVENT CODE : EPE
EP2729619 B1	20150722	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2541585 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20150722
EP2729619 B1	20150722	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2729619 B1	20150729	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2729619 B1	20150907	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20150506
EP2729619 B1	20151105	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20150401447 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20150901
EP2729619 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 : 20150906
EP2729619 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 : 20150506
EP2729619 B1	20160204	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 602013001706 COUNTRY OF REF DOCUMENT : DE
EP2729619 B1	20160215	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : UEP REF DOCUMENT NUMBER : 725801 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150506
EP2729619 B1	20160218	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 : 4
EP2729619 B1	20160316	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : HSD INDUSTRIEBELAEGE GMBH EFFECTIVE DATE : 20160204
EP2729619 B1	20330227	PEXP		Calculated Patent Term Expiry	
EP2729619 B8	20160601	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SK REF LEGAL EVENT CODE : TA4A

EP2729619 B8	20160829	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E026913 COUNTRY OF REF DOCUMENT : HU
EP2729619 B8	20160930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150506
EP2729619 B8	20161130	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : INVENTOR REF COUNTRY CODE : SI REF LEGAL EVENT CODE : SP72 INVENTOR : MEUWISSEN DIRK; BE EFFECTIVE DATE : 20161010
EP2729619 B8	20161130	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : INVENTOR REF COUNTRY CODE : SI REF LEGAL EVENT CODE : SP72 INVENTOR : KLINGELEERS ALBERT CHARLES; BE EFFECTIVE DATE : 20161010
EP2729619 B8	20161130	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : INVENTOR REF COUNTRY CODE : SI REF LEGAL EVENT CODE : SP72 INVENTOR : WINTERS RENE; BE EFFECTIVE DATE : 20161010
EP2729619 B8	20170217	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
EP2729619 B8	20170315	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : INVENTOR REF COUNTRY CODE : AT REF LEGAL EVENT CODE : HA REF DOCUMENT NUMBER : 725801 COUNTRY OF REF DOCUMENT : AT INVENTOR : MEUWISSEN, DIRK, BE KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170214
EP2729619 B8	20170315	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : INVENTOR REF COUNTRY CODE : AT REF LEGAL EVENT CODE : HA REF DOCUMENT NUMBER : 725801 COUNTRY OF REF DOCUMENT : AT INVENTOR : KLINGELEERS, ALBERT, CHARLES, BE KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170214
EP2729619 B8	20170315	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : INVENTOR REF COUNTRY CODE : AT REF LEGAL EVENT CODE : HA REF DOCUMENT NUMBER : 725801 COUNTRY OF REF DOCUMENT : AT INVENTOR : RENE WINTERS, BE KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170214
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170217 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170216 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170217 YEAR OF FEE PAYMENT : 5

EP2729619 B8	20170428	LSFE	+PGFP	NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20170125 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170217 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20170217 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20170213 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20170220 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20170120 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20170220 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20170213 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170216 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI PAYMENT DATE : 20170131 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20170130 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20170207 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170220 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20170213 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20170216

EP2729619 B8	20170531	LSFE	+PGFP	NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 5 COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170216 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20170216 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170216 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20170214 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170221 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170213 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150506
EP2729619 B8	20180117	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R100 REF DOCUMENT NUMBER : 602013001706 COUNTRY OF REF DOCUMENT : DE
EP2729619 B8	20180223	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20180223 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 6

EP2729619 B8	20180430	LSFE	+PGFP	EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20180123 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180327 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20180122 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	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 : 20150506
EP2729619 B8	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 : 20150506
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20180213 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20180213 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20180213 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20180208 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 6

EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20180220 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20180220 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180223 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180223 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 6
EP2729619 B8	20180627	LSRE	+270	OPPOSITION REJECTED	EFFECTIVE DATE : 20180117
EP2729619 B8	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160229
EP2729619 B8	20180629	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK PAYMENT DATE : 20170126 YEAR OF FEE PAYMENT : 5
EP2729619 B8	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150506
EP2729619 B8	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK PAYMENT DATE : 20180123 YEAR OF FEE PAYMENT : 6

EP2729619 B8	20190329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190418	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : HENGELHOEF CONCRETE JOINTS NV, BE REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602013001706 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: HENGELHOEF CONCRETE JOINTS MANUFACTURING NV, GENK, BE
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20190124 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20190205 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190321 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20190123 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190225 YEAR OF FEE PAYMENT : 7

EP2729619 B8	20190515	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : EE REF LEGAL EVENT CODE : GB1A REF DOCUMENT NUMBER : E010801 COUNTRY OF REF DOCUMENT : EE
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20190213 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20190216 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI PAYMENT DATE : 20190121 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20190212 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20190205 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190614	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : HENGELHOEF CONCRETE JOINTS NV, BE REF LEGAL EVENT CODE : PUE OLDPARTY : FORMER OWNER : HENGELHOEF CONCRETE JOINTS MANUFACTURING NV, NL
EP2729619 B8	20190617	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : NO OWNER : HENGELHOEF CONCRETE JOINTS NV, BE REF LEGAL EVENT CODE : CHAD
EP2729619 B8	20190628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 7

EP2729619 B8	20190628	LSFE	+PGFP	EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK PAYMENT DATE : 20190124 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190628	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : HENGELHOEF CONCRETE JOINTS NV REF LEGAL EVENT CODE : PC2A EFFECTIVE DATE : 20190624
EP2729619 B8	20190702	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : SK OWNER : HENGELHOEF CONCRETE JOINTS NV, GENK, BE REF LEGAL EVENT CODE : PC4A REF DOCUMENT NUMBER : E 18966 COUNTRY OF REF DOCUMENT : SK OLDPARTY : FORMER OWNER: HENGELHOEF CONCRETE JOINTS MANUFACTURING NV, GENK, NL EFFECTIVE DATE : 20190619
EP2729619 B8	20190715	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : AT OWNER : HENGELHOEF CONCRETE JOINTS NV, BE REF LEGAL EVENT CODE : PC REF DOCUMENT NUMBER : 725801 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190612
EP2729619 B8	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 7
EP2729619 B8	20190830	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : SI OWNER : HENGELHOEF CONCRETE JOINTS NV; BE REF LEGAL EVENT CODE : SP73 EFFECTIVE DATE : 20190709
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20200122 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20200224 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20200131

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20200224 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20200322 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20200123 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20200217 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20200212 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20200213 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20200224 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20200124 YEAR OF FEE PAYMENT : 8
EP2729619 B8	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20200225 YEAR OF FEE PAYMENT : 8
EP2927370 A1	20151007	LSPB	+	published / reissued	
EP2927370 A1	20160511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160330
EP2927370 A1	20180613	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180517
EP2927370 B1	20181024	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2927370 B1	20181031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2927370 B1	20181109	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : RO REF LEGAL EVENT CODE : EPE
EP2927370 B1	20181114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2927370 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER :

					1056810 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181115
EP2927370 B1	20181122	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602013045795 COUNTRY OF REF DOCUMENT : DE
EP2927370 B1	20181210	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : NO OWNER : HENGELHOEF CONCRETE JOINTS NV, BE REF LEGAL EVENT CODE : CHAD
EP2927370 B1	20181212	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV
EP2927370 B1	20190110	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2695726 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190110
EP2927370 B1	20190121	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20181024
EP2927370 B1	20190329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190412	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20180403204 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20190320
EP2927370 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190224
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190321 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20190205 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190218

EP2927370 B1	20190430	LSFE	+PGFP	NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 7 COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190225 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20190124 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20190123 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2927370 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181024
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20190216 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20190205 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20190215 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20190213 YEAR OF FEE PAYMENT : 7

EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI PAYMENT DATE : 20190121 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20190221 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK PAYMENT DATE : 20190124 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 7
EP2927370 B1	20190725	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602013045795 COUNTRY OF REF DOCUMENT : DE
EP2927370 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 7
EP2927370 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
EP2927370 B1	20191002	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190725
EP2927370 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 : 20181024
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT PAYMENT DATE : 20200124 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8

				NATIONAL OFFICE TO EPO]	
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG PAYMENT DATE : 20200224 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20200322 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20200221 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20200224 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20200123 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20200131 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20200225 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20200221 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20200213 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20200224 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE PAYMENT DATE : 20200212 YEAR OF FEE PAYMENT : 8

EP2927370 B1	20200501	LSFE	+PGFP	NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 8
EP2927370 B1	20330227	PEXP		Calculated Patent Term Expiry	
EP2930268 A1	20151014	LSPB	+	published / reissued	
EP2930268 A1	20160511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160330
EP2930268 A1	20180502	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20180403
EP2930268 A1	20181212	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV
ES2541585 T3	20150722	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2541585 T3	20330227	PEXP		Calculated Patent Term Expiry	
ES2695726 T3	20190110	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2695726 T3	20330227	PEXP		Calculated Patent Term Expiry	
GB201203314 A0	20130522	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201215277 A0	20130522	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201220095 A0	20130522	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GC7380 A	20180318	LSGT	+	granted / extensions (spc, cpc, pte)	
GC7380 A	20330223	PEXP		Calculated Patent Term Expiry	
HK1204484 A1	20151120	LSPB	+	published / reissued	
HK1204484 A1	20350526	PEXP		Calculated Patent Term Expiry	
HK1204484 B	20180309	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1204484 B	20350526	PEXP		Calculated Patent Term Expiry	
HR20150709 T1	20150911	LSPB	+	published / reissued	
HR20181870 T1	20190111	LSPB	+	published / reissued	
HU026913 T2	20160829	LSPB	+	published / reissued	
ID201601504 A	20160318	LSPB	+	published / reissued	
IL234198 A1	20180531	LSPB	+	published / reissued	
IL234198 A1	20180920	LSGT	+FF	PATENT GRANTED	
IL234198 A1	20181031	LSFE	+KB	PATENT RENEWED	
IL234198 A1	20190228	LSFE	+KB	PATENT RENEWED	
IL258987 A1	20200331	LSPB	+	published / reissued	
IN07805DN2014 A	20150515	LSPB	+	published / reissued	
JP2015513016 T2	20150430	LSPB	+	published / reissued	
JP2015513016 T2	20160113	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20160113
JP2015513016 T2	20160329	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160329

JP2015513016 T2	20160415	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20160329
JP2015513016 T2	20161115	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20161115
JP2015513016 T2	20170214	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20170214
JP2015513016 T2	20170707	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2015513016 T2	20170713	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20170713
JP2015513016 T2	20170727	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170718
JP2015513016 T2	20170728	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6180445 COUNTRY OF REF DOCUMENT : JP
JP6180445 B2	20170816	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6180445 B2	20170720	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6180445 B2	20170725	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6180445 B2	20170728	LSGT	+R150	特許証 (Patent certificate)	
JP6180445 B2	20330227	PEXP		Calculated Patent Term Expiry	
KR102106877 B1	20200507	LSGT	+	granted / extensions (spc, cpc, pte)	
KR102106877 B1	20330227	PEXP		Calculated Patent Term Expiry	
KR20150008379 A	20150122	LSPB	+	published / reissued	
KR20150008379 A	20180122	LSES	A201	REQUEST FOR EXAMINATION	
KR20150008379 A	20190813	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150008379 A	20200302	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20150008379 A	20200427	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20200049885 A	20200508	LSPB	+	published / reissued	
LT2927370 T	20181210	LSGT	+	granted / extensions (spc, cpc, pte)	
LT2927370 T	20330227	PEXP		Calculated Patent Term Expiry	
MX2014010246 A1	20150605	LSPB	+	published / reissued	
MX2014010246 A1	20180209	LSGT	+FG	GRANT OR REGISTRATION	
MX354061 B	20180209	LSGT	+	granted / extensions (spc, cpc, pte)	
MX354061 B	20330227	PEXP		Calculated Patent Term Expiry	
MY164994 A	20180228	LSGT	+	granted / extensions (spc, cpc, pte)	
MY164994 A	20330227	PEXP		Calculated Patent Term Expiry	
NI201400097 A	20150309	LSGT	+	granted / extensions (spc, cpc, pte)	

NI201400097 A	20340826	PEXP		Calculated Patent Term Expiry	
NZ629939 A	20151030	LSPB	+	published / reissued	
NZ629939 A	20160226	LSGT	+PSEA	PATENT SEALED	
NZ629939 A	20160331	LSRE	ERR	ERROR OR CORRECTION	TEXT : THE AGENT HAS BEEN CORRECTED TO 1102768, COLLISON + CO, COLLISON + CO, PO BOX 44222, LOWER HUTT 5040, NZ; THE CONTACT HAS BEEN CORRECTED TO 1102768, COLLISON + CO, COLLISON + CO, PO BOX 44222, LOWER HUTT 5040, NZ EFFECTIVE DATE : 20160301
NZ629939 A	20160331	LSRE	ERR	ERROR OR CORRECTION	TEXT : THE MISSING AGENT HAS BEEN ADDED (1102768, COLLISON + CO, COLLISON + CO, PO BOX 44222, LOWER HUTT 5040, NZ; 1441794, IPONZ, 2. , 205 VICTORIA STREET, TE ARO, WELLINGTON 6011, NZ); THE CONTACT HAS BEEN CORRECTED TO 1441794, IPONZ, 2. , 205 VICTORIA STREET, TE ARO, WELLINGTON 6011, NZ EFFECTIVE DATE : 20160301
NZ629939 A	20160331	LSRE	ERR	ERROR OR CORRECTION	TEXT : THE INVENTOR HAS BEEN CORRECTED TO 3153430, MEUWISSEN, DIRK, KORENSTRAT 7B-3600 GENK, BE; 3153431, KLINGELEERS, ALBERT, CHARLES, STOKKEMERBAAN 116B-3650 DILSEN-STOKKEM, BE; 3512816, WINTERS, RENE ALICE P. , DAALSTRAAT 10, 3680 MAASEIK, BE EFFECTIVE DATE : 20160303
NZ629939 A	20161223	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 FEB 2018 BY COLLISON + CO EFFECTIVE DATE : 20161202
NZ629939 A	20180126	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 FEB 2019 BY COLLISON + CO EFFECTIVE DATE : 20180118
NZ629939 A	20190222	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 FEB 2020 BY COLLISON + CO EFFECTIVE DATE : 20190208
NZ629939 A	20200131	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 FEB 2021 BY COLLISON + CO EFFECTIVE DATE : 20200128
PE20142419 A1	20150111	LSPB	+	published / reissued	
PE24192014 A1	20150111	LSPB	+	published / reissued	
PE24192014 A1	20180627	LSGT	+FG	GRANT, REGISTRATION	
PL2729619 T3	20151030	LSGT	+	granted / extensions (spc, cpc, pte)	
PL2927370 T3	20190329	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2729619 T	20150826	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2729619 T	20330227	PEXP		Calculated Patent Term Expiry	
PT2927370 T	20181127	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2927370 T	20330227	PEXP		Calculated Patent Term Expiry	
SG11201405217T A1	20140926	LSPB	+	published / reissued	
SI2729619 T1	20150930	LSGT	+	granted / extensions (spc, cpc, pte)	
SI2729619 T1	20330227	PEXP		Calculated Patent Term Expiry	

SI2927370 T1	20181231	LSGT	+	granted / extensions (spc, cpc, pte)	
SI2927370 T1	20330227	PEXP		Calculated Patent Term Expiry	
TR201507935 T4	20150821	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201507935 T4	20330227	PEXP		Calculated Patent Term Expiry	
TR201817092 T4	20181221	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201817092 T4	20330227	PEXP		Calculated Patent Term Expiry	
US10077533 BB	20180918	LSGT	+	granted / extensions (spc, cpc, pte)	
US10077533 BB	20140827	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS MANUFACTURING NV, BELGI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MEUWISSEN, DIRK; KLINGELEERS, ALBERT CHARLES; REEL/FRAME:033620/0930 EFFECTIVE DATE : 20130311
US10077533 BB	20180829	LSGT	PAT1	Patented Case	
US10077533 BB	20190924	LSRE	CC	CERTIFICATE OF CORRECTION	
US10077533 BB	20330912	PEXP		Calculated Patent Term Expiry (PTA 197 days)	
US10323359 BB	20190618	LSGT	+	granted / extensions (spc, cpc, pte)	
US10323359 BB	20180813	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10323359 BB	20180830	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10323359 BB	20180912	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV, BELGIUM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MEUWISSEN, DIRK; KLINGELEERS, ALBERT CHARLES; WINTERS, RENE ALICE P.; SIGNING DATES FROM 20180904 TO 20180911; REEL/FRAME:046856/0686
US10323359 BB	20380813	PEXP		Calculated Patent Term Expiry	
US2015023725 AA	20150122	LSPB	+	published / reissued	
US2015023725 AA	20160324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS MANUFACTURING NV, BELGI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINTERS, RENE ALICE P.; REEL/FRAME:038087/0143 EFFECTIVE DATE : 20160301
US2015023725 AA	20170823	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2015023725 AA	20170828	LSES	NFA1	Non Final Action Mailed	
US2015023725 AA	20180316	LSES	ADV1	Advisory Action Mailed	
US2015023725 AA	20180510	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	

US2015023725 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV, BELGIUM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:HENGELHOEF CONCRETE JOINTS MANUFACTURING NV; REEL/FRAME:046576/0013 EFFECTIVE DATE : 20180801
US2015023725 AA	20180813	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2015023725 AA	20180814	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2015023725 AA	20180829	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018371703 AA	20181227	LSPB	+	published / reissued	
US2018371703 AA	20190204	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018371703 AA	20190529	LSGT	PAT1	Patented Case	
US2018371703 AA	20190529	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019257040 AA	20190822	LSPB	+	published / reissued	
US2019257040 AA	20190503	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV, BELGIUM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MEUWISSEN, DIRK; KLINGELEERS, ALBERT CHARLES; REEL/FRAME:049072/0542 EFFECTIVE DATE : 20180904
US2019257040 AA	20190506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HENGELHOEF CONCRETE JOINTS NV, BELGIUM OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE CORRECT ASSIGNOR'S NAME PREVIOUSLY RECORDED AT REEL: 049072 FRAME: 0542. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNORS:MEUWISSEN, DIRK; KLINGELEERS, ALBERT CHARLES; WINTERS, RENE ALICE P.; SIGNING DATES FROM 20180904 TO 20180909; REEL/FRAME:049087/0684
US2019257040 AA	20190710	LSES	NFA1	Non Final Action Mailed	
US2019257040 AA	20200326	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
WO13127812 A2	20130906	LSPB	+	published / reissued	
WO13127812 A3	20131213	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013708716 COUNTRY OF REF DOCUMENT : EP
WO13127812 A3	20140819	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 234198 COUNTRY OF REF DOCUMENT : IL
WO13127812 A3	20140821	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2865188 COUNTRY OF REF DOCUMENT : CA
WO13127812 A3	20140821	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : CR2014-000393 COUNTRY OF REF DOCUMENT : CR
WO13127812 A3	20140825	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER : 14380803

				ENTRY INTO NATIONAL PHASE	COUNTRY OF REF DOCUMENT : US
WO13127812 A3	20140825	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2014/010246 COUNTRY OF REF DOCUMENT : MX
WO13127812 A3	20140826	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2014558151 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13127812 A3	20140826	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14187219 COUNTRY OF REF DOCUMENT : CO
WO13127812 A3	20140826	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 001317-2014 COUNTRY OF REF DOCUMENT : PE
WO13127812 A3	20140912	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2014702555 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13127812 A3	20140916	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201491542 COUNTRY OF REF DOCUMENT : EA
WO13127812 A3	20140925	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2013225087 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20130227 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13127812 A3	20140925	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : IDP00201405797 COUNTRY OF REF DOCUMENT : ID
WO13127812 A3	20170620	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 112014021002 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20140826
ZA201406312 A	20160831	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201406312 A	20340827	PEXP		Calculated Patent Term Expiry	

Title: CONVERTIBLE STADIUM AND METHOD OF OPERATING

Abstract: A convertible public exhibition facility includes a stadium having an exhibition area and a seating area that is situated about the exhibition area for permitting spectators to view activities taking place in the exhibition area. The exhibition facility further includes a movable natural grass activity platform that has a surface area of natural grass that is at least 10,000 square feet and that is constructed so as to have a characteristic frequency of at least 6 Hz. Situated within the natural grass activity platform is a transport mechanism that is constructed and arranged so as to be able to move the natural grass activity platform as a complete unit from a location that is outside of the stadium to a location that is within the exhibition area. Preferably, the location that is outside of the stadium is an outdoor location that provides optimal conditions for the growth of natural grass.

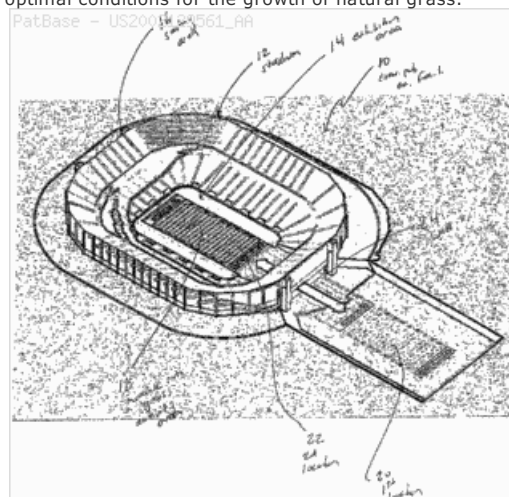
Classifications:**International (IPC 8-9):** E01C13/08 E04B7/16

E04H3/14 (Advanced/Invention);

E01C13/00 (Advanced/Non-invention);

E01C13/08 E04B7/16 E04H3/14 (Core/Invention);

E01C13/00 (Core/Non-invention)

International (IPC 1-7): A63C19/00 A63J1/02 E04B1/346 E04B3/10 E04B7/16 E04H3/10**CPC:** E01C13/083 E01C2013/006 E04B7/166 E04H3/14**European:** E01C13/08B E04B7/16T E04H3/14 P01C13/00T**US:** 427/42 427/85 427/92 427/94 472/42 472/77 472/85 472/92 472/94 52/126.1 52/126.5 52/6 52/64 52/66 52/7 52/741.1**Family:**

Publication number	Publication date	Application number	Application date
US2002129561 AA	20020919	US20020054433	20020122
US2002129565 AA	20020919	US20020053790	20020122
US2002134028 AA	20020926	US20020053755	20020122
US6698141 BB	20040302	US20020054433	20020122
US6718696 BB	20040413	US20020053755	20020122
US6789360 BB	20040914	US20020053790	20020122

Priority:

US20010263645P 20010123 US20020053755 20020122 US20020053790 20020122
 US20020054433 20020122

Probable Assignee: UNI SYSTEMS LLC**Assignee(s):** (std): SADINSKY DAVID ; SILBERMAN CYRIL ; THOMPSON TERRY ; UNI SYSTEMS LLC**Assignee(s):** RIBERICH BART ; NIELSON LENNART ; KLINE TIMOTHY J ; CHENG ANDREW**Inventor(s):** (std): CHENG ANDREW ; NIELSON LENNART ; RIBERICH BART ; SADINSKY DAVID ; SILBERMAN CYRIL ; KLINE TIMOTHY J ; THOMPSON TERRY**Inventor(s):** TIMOTHY J KLINE ; LENNART NIELSON ; TERRY THOMPSON ; CYRIL SILBERMAN ; DAVID SADINSKY ; ANDREW CHENG ; BART RIBERICH**Legal status (INPADOC)**[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US2002129561 AA	20020919	LSPB	+	published / reissued	
US2002129561 AA	20040212	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002129565 AA	20020919	LSPB	+	published / reissued	
US2002129565 AA	20040826	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002134028 AA	20020926	LSPB	+	published / reissued	
US2002134028 AA	20040325	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US6698141 BB	20040302	LSGT	+	granted / extensions (spc, cpc, pte)	
US6698141 BB	20020917	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNI-SYSTEMS, LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SILBERMAN, CYRIL; SADINSKY, DAVID; RIBERICH, BARTON; AND OTHERS; REEL/FRAME:013290/0791; SIGNING DATES FROM 20020520 TO 20020827
US6698141 BB	20040212	LSGT	PAT1	Patented Case	
US6698141 BB	20070904	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6698141 BB	20120126	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6698141 BB	20150831	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6698141 BB	20220122	PEXP		Calculated Patent Term Expiry	
US6718696 BB	20040413	LSGT	+	granted / extensions (spc, cpc, pte)	
US6718696 BB	20020917	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNI-SYSTEMS, LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SILBERMAN, CYRIL; SADINSKY, DAVID; RIBERICH, BARTON; AND OTHERS; REEL/FRAME:013294/0408; SIGNING DATES FROM 20020520 TO 20020827
US6718696 BB	20040325	LSGT	PAT1	Patented Case	
US6718696 BB	20080320	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6718696 BB	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6718696 BB	20150923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6718696 BB	20220122	PEXP		Calculated Patent Term Expiry	
US6789360 BB	20040914	LSGT	+	granted / extensions (spc, cpc, pte)	
US6789360 BB	20020917	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNI-SYSTEMS, LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SILBERMAN, CYRIL; SADINSKY, DAVID; RIBERICH, BARTON; AND OTHERS; REEL/FRAME:013294/0022; SIGNING DATES FROM 20020520 TO 20020827
US6789360 BB	20040826	LSGT	PAT1	Patented Case	
US6789360 BB	20080320	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6789360 BB	20120126	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6789360 BB	20160226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6789360 BB	20220228	PEXP		Calculated Patent Term Expiry (PTA 37 days)	

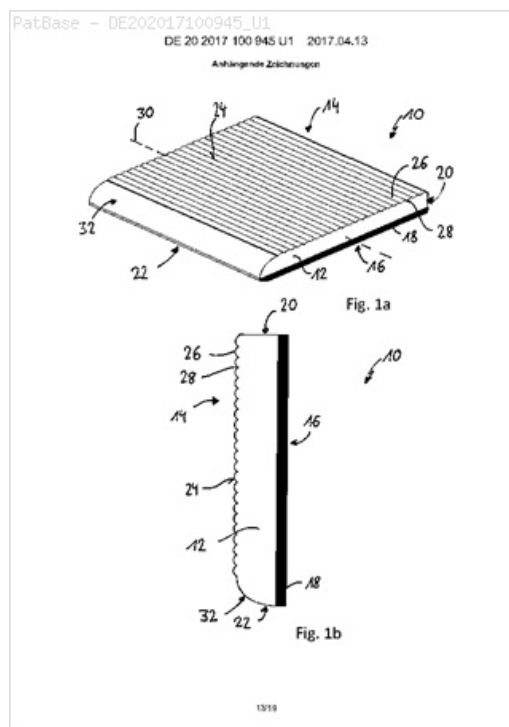
Title: FUGENBAND FUER DEN VERKEHRSWEGEBAU MIT MINDESTENS EINEM RIPPENELEMENT TAPE FOR THE ROAD CONSTRUCTION WITH ONE OR MORE RIBS ELEMENTS (Machine translation)

Abstract: Source: DE202017100945U1 [DE] Fugenband (10) fuer den Verkehrswegebau zur Herstellung von Naechten und/oder Anschluessen, insbesondere bei Deckschichten aus Asphaltmischgut, umfassend einen Fugenbandkoerper (12), dadurch gekennzeichnet, dass der Fugenbandkoerper (12) auf einer ersten Laengsseite (14) mindestens ein zumindest teilweise in Richtung einer Laengserstreckung des Fugenbandes (10) verlaufendes Rippelement (26, 27) umfasst. **Machine translation:** Joint tape (10) for the road construction for the production of joints or connections, especially at covering layers of asphalt mix, comprehensively a crevice tape body (12), characterized that the joints (12) hinge on the first long side (14) at least one at least partly in the direction of a longitudinal extent of the gap band (10) runs ribs element (26, 27) includes.

Classifications:

International (IPC 8-9): E01C 11/10 (Advanced/Invention)

CPC: E01C 11/10 E01C 11/106



Family:

Publication number	Publication date	Application number	Application date
DE202017100945 U1	20170413	DE201720100945U	20170221

Priority:

DE201720100945U 20170221

Probable Assignee:

DENSO HOLDING GMBH AND CO

Assignee(s): (std):

DENSO HOLDING GMBH AND CO

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE202017100945 U1	20170413	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202017100945 U1	20170413	LSGT	R207	UTILITY MODEL SPECIFICATION	
DE202017100945 U1	20200226	LSGT	+R150	UTILITY MODEL MAINTAINED AFTER PAYMENT OF FIRST MAINTENANCE FEE AFTER THREE YEARS	
DE202017100945 U1	20270221	PEXP		Calculated Patent Term Expiry	

Title: METHODS AND APPARATUS FOR MOBILE ADDITIVE MANUFACTURING OF ADVANCED STRUCTURES AND ROADWAYS

Abstract: The present disclosure provides various aspects for mobile and automated processing utilizing additive manufacturing and the methods for their utilization. In some examples, the mobile additive manufacturing apparatus may perform surface treatments that support the building of walls. Other examples may involve the support of creating and repairing advanced roadways.

Classifications:

International (IPC 8-9): B22F3/105 B28B1/30 B29C63/06 B29C64/106 B29C64/118 B29C64/20 B29C64/386 B29C64/393 B29C65/00

B29C65/48 B29C67/00 B33Y10/00 B33Y30/00 B33Y40/00 B33Y50/02 E01C11/00 E01C19/12 E01C19/15 E01C23/00 E01C23/01 E01C23/02 E01C23/06 E01C23/07 E01C23/09 G01C21/26 G05B19/31 G06F19/00 G1C21/26 (Advanced/Invention);

B22F3/105 B29L31/00 B33Y50/02 E01C23/01 (Advanced/Non-invention)

CPC: B29C63/06 B29C65/48 B29C66/52272 B29K2021/00 B29K2105/256

B29K2621/00 B29L2031/757 B29C64/188 B22F3/008 B22F2003/1056

B22F2999/00 B33Y40/00 G05B19/31 E01C23/096 E01C11/16

E01C23/0906 E01C23/0973 E01C23/098 G05D1/0011 G05D2201/0202

B22F2003/1057 B29C64/20 B29L2031/776 B33Y50/02 E01C11/005

E01C23/01 E01C23/06 E01C23/07 E01C23/0966 Y02P10/295

B29C64/393 E01C23/065 B29C64/112 B33Y10/00 B33Y30/00

G05B2219/49023 G05B19/4097 G05B19/4099 B29C64/245 B29C67/0088 B29C64/386 B29C64/106 B29C64/227 B29C64/118

US: 1/1 264/31 264/36.1 264/40.1 425/62

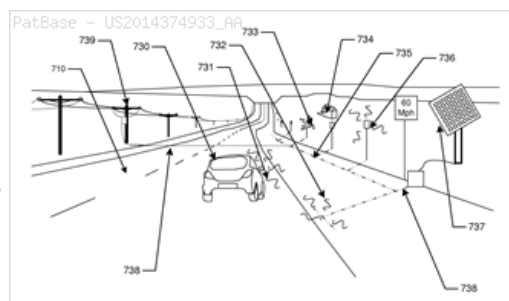
JP F-Term: 2D053 2D053/AA14 2D053/AB02 2D053/AD01 4F213 4F213/AR02 4F213/AR06 4F213/AR07 4F213/WA25

4F213/WB01 4F213/WL02 4F213/WL22 4F213/WL46 4F213/WL73 4F213/WL74 4F213/WL85 4F213/WL92 4G052 4G052/DA01

4G052/DB12 4G052/DC06

JP F-Index: B28B1/30 B29C64/112 B29C64/118 B29C64/209 B29C64/393 B29C67/00 B33Y10/00 B33Y30/00 B33Y50/02

E01C23/02



Family:

Publication number	Publication date	Application number	Application date
CA2914265 AA	20151130	CA20142914265	20140621
CA2914265 C	20170613	CA20142914265	20140621
CA2963236 AA	20141231	CA20142963236	20140621
CA2963236 C	20190820	CA20142963236	20140621
CA2992943 AA	20171004	CA20162992943	20160413
CN105339551 A	20160217	CN201480035780	20140621
CN105339551 B	20190326	CN201480035780	20140621
CN109898389 A	20190618	CN201910181984	20140621
EP3014022 A1	20160504	EP20140817701	20140621
EP3014022 A4	20170405	EP20140817701	20140621
JP2016535687 A2	20161117	JP20160523820	20140621
JP2016535687 T2	20161117	JP20160523820T	20140621
JP6510509 B2	20190508	JP20160523820T	20140621
US2014374933 AA	20141225	US20140310556	20140620
US2014374935 AA	20141225	US20140310443	20140620
US2017232666 AA	20170817	US20160029475	20160413
US2017298580 AA	20171019	US20170639766	20170630
US2017305137 AA	20171026	US20170641509	20170705
US2018243992 AA	20180830	US20180963767	20180426
US2019126557 AA	20190502	US20180233439	20181227
US2020086578 AA	20200319	US20190692993	20191122
US9724877 BB	20170808	US20140310556	20140620
US9987792 BB	20180605	US20170641509	20170705
US9988772 BB	20180605	US20170639766	20170630
US10201932 BB	20190212	US20180963767	20180426
US10525631 BB	20200107	US20180233439	20181227
US10661505 BB	20200526	US20190692993	20191122
WO14209815 A1	20141231	WO2014US43537	20140621
WO16168314 A1	20161020	WO2016US27309	20160413

Priority:

US20130838302P 20130623	US20140310556 20140620	US20140310443 20140620
CA20142914265 20140621	CN201480035780 20140621	WO2014US43537 20140621
US20150148035P 20150415	US20160286836P 20160125	US20160029475 20160413
WO2016US27309 20160413	CA20172914265 20170412	US20170639766 20170630
US20170641509 20170705	US20180963767 20180426	US20180233439 20181227
US20190692993 20191122		

Probable Assignee: ADDIBOTS LLC

Assignee(s): (std): ADDIBOTS LLC ; FLITSCH FREDERICK A ; FLITSCH ROBERT A

Inventor(s): (std): FLITSCH ROBERT A ; FLITSCH ROBERT ; FLITSCH FREDERICK A ; FLITSCH FREDERICK

Agent(s): LLOYD ROBIN; TANI AND ABE PC; IDEATION LAW PLLC; JOSEPH P; KINCART ESQ JOSEPH P; ROGERS TOWERS PA; KINCART JOSEPH P; KINCART JOSEPH

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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CA2914265 AA	20151130	LSPB	+	published / reissued	
CA2914265 AA	20151222	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20151130
CA2914265 C	20170613	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2914265 C	20340621	PEXP		Calculated Patent Term Expiry	
CA2963236 AA	20141231	LSPB	+	published / reissued	
CA2963236 AA	20170517	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20170405
CA2963236 C	20190820	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2963236 C	20340621	PEXP		Calculated Patent Term Expiry	
CA2992943 AA	20171004	LSPB	+	published / reissued	
CA2992943 AA	20180206	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20171004
CA2992943 AA	20190626	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20190501
CN105339551 A	20160217	LSPB	+	published / reissued	
CN105339551 A	20160217	LSPB	+C06	PUBLICATION	
CN105339551 A	20160217	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN105339551 B	20190326	LSGT	+	granted / extensions (spc, cpc, pte)	
CN105339551 B	20190326	LSGT	+GR01	PATENT GRANT	
CN105339551 B	20340621	PEXP		Calculated Patent Term Expiry	
CN109898389 A	20190618	LSPB	+	published / reissued	
CN109898389 A	20190618	LSPB	PB01	PUBLICATION	
EP3014022 A1	20160504	LSPB	+	published / reissued	
EP3014022 A1	20160504	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20151207
EP3014022 A4	20170405	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20170307
EP3014022 A4	20200527	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20200430
JP2016535687 A2	20161117	LSPB	+	published / reissued	
JP2016535687 T2	20161117	LSPB	+	published / reissued	
JP2016535687 T2	20170410	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20170410
JP2016535687 T2	20180626	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20180626
JP2016535687 T2	20180926	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20180926
JP2016535687 T2	20190226	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016535687 T2	20190312	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20190312
JP2016535687 T2	20190411	LSFE	+A61	FIRST PAYMENT OF	TEXT : JAPANESE INTERMEDIATE

				ANNUAL FEES (DURING GRANT PROCEDURE)	CODE: A61 EFFECTIVE DATE : 20190404
JP2016535687 T2	20190412	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6510509 COUNTRY OF REF DOCUMENT : JP
JP6510509 B2	20190508	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6510509 B2	20190314	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6510509 B2	20190409	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6510509 B2	20190412	LSGT	+R150	特許証 (Patent certificate)	
JP6510509 B2	20340621	PEXP		Calculated Patent Term Expiry	
US10201932 BB	20190212	LSGT	+	granted / extensions (spc, cpc, pte)	
US10201932 BB	20180426	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10201932 BB	20180517	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10201932 BB	20190123	LSGT	PAT1	Patented Case	
US10201932 BB	20380426	PEXP		Calculated Patent Term Expiry	
US10525631 BB	20200107	LSGT	+	granted / extensions (spc, cpc, pte)	
US10525631 BB	20181227	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10525631 BB	20190123	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10525631 BB	20191218	LSGT	PAT1	Patented Case	
US10525631 BB	20381227	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US10661505 BB	20200526	LSGT	+	granted / extensions (spc, cpc, pte)	
US10661505 BB	20391122	PEXP		Calculated Patent Term Expiry	
US2014374933 AA	20141225	LSPB	+	published / reissued	
US2014374933 AA	20170512	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014374933 AA	20170705	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2014374933 AA	20170710	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014374933 AA	20170719	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014374935 AA	20141225	LSPB	+	published / reissued	
US2014374935 AA	20140724	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADDIBOTS, LLC, NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FLITSCH, ROBERT A.; FLITSCH, FREDERICK A.; REEL/FRAME:033383/0234

US2014374935 AA	20170404	LSES	NFA1	Non Final Action Mailed	
US2014374935 AA	20180928	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2017232666 AA	20170817	LSPB	+	published / reissued	
US2017232666 AA	20191126	LSES	NFA1	Non Final Action Mailed	
US2017232666 AA	20200325	LSES	NFA1	Non Final Action Mailed	
US2017298580 AA	20171019	LSPB	+	published / reissued	
US2017298580 AA	20171027	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2017298580 AA	20171031	LSES	NFA1	Non Final Action Mailed	
US2017298580 AA	20180402	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2017298580 AA	20180403	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017298580 AA	20180505	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017298580 AA	20180516	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017305137 AA	20171026	LSPB	+	published / reissued	
US2017305137 AA	20171027	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2017305137 AA	20171031	LSES	NFA1	Non Final Action Mailed	
US2017305137 AA	20180311	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2017305137 AA	20180323	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017305137 AA	20180503	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2017305137 AA	20180516	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018243992 AA	20180830	LSPB	+	published / reissued	
US2018243992 AA	20190108	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018243992 AA	20190123	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019126557 AA	20190502	LSPB	+	published / reissued	
US2019126557 AA	20190409	LSES	NFA1	Non Final Action Mailed	
US2019126557 AA	20190826	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2019126557 AA	20191126	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2019126557 AA	20191218	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2020086578 AA	20200319	LSPB	+	published / reissued	
US2020086578 AA	20200422	LSFE	+PPV1	Publications -- Issue	

Fee Payment Verified						
US2020086578 AA	20200506	LSGT	PAT1	Patented Case		
US2020086578 AA	20200506	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US9724877 BB	20170808	LSGT	+	granted / extensions (spc, cpc, pte)		
US9724877 BB	20140724	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADDIBOTS, LLC, NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FLITSCH, ROBERT A.; FLITSCH, FREDERICK A.; REEL/FRAME:033383/0234 EFFECTIVE DATE : 20140723	
US9724877 BB	20170719	LSGT	PAT1	Patented Case		
US9724877 BB	20350716	PEXP		Calculated Patent Term Expiry (PTA 391 days)		
US9987792 BB	20180605	LSGT	+	granted / extensions (spc, cpc, pte)		
US9987792 BB	20180516	LSGT	PAT1	Patented Case		
US9987792 BB	20370705	PEXP		Calculated Patent Term Expiry		
US9988772 BB	20180605	LSGT	+	granted / extensions (spc, cpc, pte)		
US9988772 BB	20180516	LSGT	PAT1	Patented Case		
US9988772 BB	20370630	PEXP		Calculated Patent Term Expiry		
WO14209815 A1	20141231	LSPB	+	published / reissued		
WO14209815 A1	20140621	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201480035780.1 COUNTRY OF REF DOCUMENT : CN	
WO14209815 A1	20151130	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2914265 COUNTRY OF REF DOCUMENT : CA	
WO14209815 A1	20151207	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014817701 COUNTRY OF REF DOCUMENT : EP	
WO14209815 A1	20151223	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE	
WO14209815 A1	20151224	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2016523820 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :	
WO16168314 A1	20161020	LSPB	+	published / reissued		
WO16168314 A1	20171004	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2992943 COUNTRY OF REF DOCUMENT : CA	
WO16168314 A1	20171017	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE	
WO16168314 A1	20180509	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16780635 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :	

Title: EINE ABNUTZUNGSSICHERE REINIGUNGSVORRICHTUNG FUER ZWISCHENRAEUME ZWISCHEN BRUECKENBAUTEILEN

Abstract: Source: DE102016112622A1 [DE] Eine abnutzungssichere Reinigungsvorrichtung fuer Zwischenraeume zwischen Brueckenbauteilen, umfassend einen linken Rahmen (3) und einen rechten Rahmen (4), sowie zwischen den Rahmen angeordnete obere elastische Abdeckung (62) und untere elastische Abdeckung (61), wobei in dem inneren Hohlraum (30) des linken Rahmens (3) und dem inneren Hohlraum (40) des rechten Rahmens (4) einen ersten Reinigungssatz (9) und einen zweiten Reinigungssatz (8) angeordnet sind. Auf dem Boden (31) des linken Rahmens (3) ist eine linke Geraetekammer (312) und auf dem Boden (41) des rechten Rahmens (4) eine rechte Geraetekammer (412) angebracht, wobei zwischen beiden Geraetekammern ein Antriebsmotor (100) angebracht ist. An den Innenwaenden der Geraetekammern sind Laerschutzwatten (103) angelegt, um die Betriebsgerauesche der Zahnraeder zu absorbieren. An dem Antriebsmotor (100) sind Kuehlungsblaetter (104) angebracht, um die Betriebswaerme des Antriebsmotors (100) zu reduzieren und somit die Lebensdauer des Antriebsmotors (100) zu erhoehen.

Classifications:

International (IPC 8-9): B08B1/00 E01C23/09 E01D19/06 E01D22/00 E01H1/00 (Advanced/Invention)

CPC: E01C23/09 E01C23/0926 E01D19/06 E01D22/00 B08B1/008 E01D19/062 E01D19/065

PatBase - DE102016112622_A1

DE 10 2016 112 622 A1 2017.01.12

Anhängende Zeichnungen

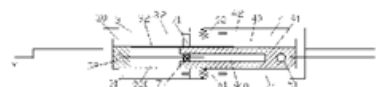


Fig. 1

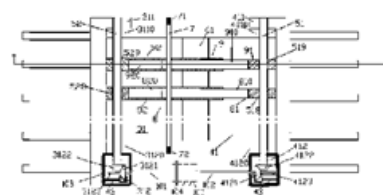


Fig. 2

Family:

Publication number	Publication date	Application number	Application date
CN104911992 A	20150916	CN201510403098	20150710
CN104911992 B	20160601	CN201510403098	20150710
DE102016112622 A1	20170112	DE201610112622	20160710
KR101681255 B1	20161201	KR20160049062	20160422
KR20160060011 A	20160527	KR20160049062	20160422

Priority:

CN201510403098 20150710 KR20160049062 20160422

Probable Assignee: XIAMEN CHENGLEI IMP AND EXP CO LTD

Assignee(s): (std): XIAMEN CITY CHENGLEI IMP AND EXP CO LTD ; XIAMEN CHENGLEI IMP AND EXP CO LTD

Assignee(s): XIAMEN CHENGLEI IMPORT AND EXPORT CO ; EXPORT CO LTD XIAMEN CITY TIRED ; XIAMEN CITY CHENGLEI IMPORT AND EXPORT CO LTD ; XIAMEN CITY CHENGLEI IMPORT AND EXPORT CO

Inventor(s): (std): SHENGYANG YU ; BU YUTING

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CN104911992 A	20150916	LSPB	+	published / reissued	
CN104911992 A	20150916	LSPB	+C06	PUBLICATION	
CN104911992 A	20150916	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN104911992 B	20160601	LSGT	+	granted / extensions (spc, cpc, pte)	
CN104911992 B	20160601	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN104911992 B	20160601	LSGT	+GR01	授权 (The grant of patent)	TEXT : 授权

				right)	(AUTHORIZATION)
CN104911992 B	20170616	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 : 李春阳 (LI CHUNYANG) PATENTEE BEFORE CHANGE : 厦门市诚果进出口有限公司 (EXPORT CO LTD XIAMEN CITY TIRED) EFFECTIVE DATE : 20170531
CN104911992 B	20181012	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN104911992 B	20181012	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 : 江苏政联建设有限公司 (JIANGSU CHIEF LINKED CONSTRUCTION CO.) PATENTEE BEFORE CHANGE : 李春阳 (LI CHUNYANG) EFFECTIVE DATE : 20180919
CN104911992 B	20190315	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN104911992 B	20190315	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 : 宿迁紫金建设有限公司 (SUQIAN ZIJIN CONSTRUCTION CO) PATENTEE BEFORE CHANGE : 江苏政联建设有限公司 (JIANGSU CHIEF LINKED CONSTRUCTION CO.) EFFECTIVE DATE : 20190222
CN104911992 B	20190705	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 : 江苏政联建设有限公司 (JIANGSU CHIEF LINKED CONSTRUCTION CO.) PATENTEE BEFORE CHANGE : 宿迁紫金建设有限公司 (SUQIAN ZIJIN CONSTRUCTION CO) EFFECTIVE DATE : 20190617
CN104911992 B	20190705	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN104911992 B	20200306	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 : 宿迁紫金建设有限公司 (SUQIAN ZIJIN CONSTRUCTION CO) PATENTEE BEFORE CHANGE : 江苏政联建设有限公司 (JIANGSU CHIEF LINKED CONSTRUCTION CO.) EFFECTIVE DATE : 20200217
CN104911992 B	20200306	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN104911992 B	20350710	PEXP		Calculated Patent Term Expiry	
DE102016112622 A1	20170112	LSPB	+	published / reissued	
DE102016112622 A1	20190201	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
KR101681255 B1	20161201	LSGT	+	granted / extensions (spc,	

cpc, pte)				
KR101681255 B1	20360422	PEXP		Calculated Patent Term Expiry
KR20160060011 A	20160527	LSPB	+	published / reissued
KR20160060011 A	20160422	LSES	A201	REQUEST FOR EXAMINATION
KR20160060011 A	20160422	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION
KR20160060011 A	20160722	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20160060011 A	20161118	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20160060011 A	20161124	LSGT	+GRNT	WRITTEN DECISION TO GRANT

Title: SCHALUNGSELEMENT FÜR DEN FUSSBODENBAU SHUTTERING ELEMENT FOR THE FUSSBODENBAU (Machine translation)

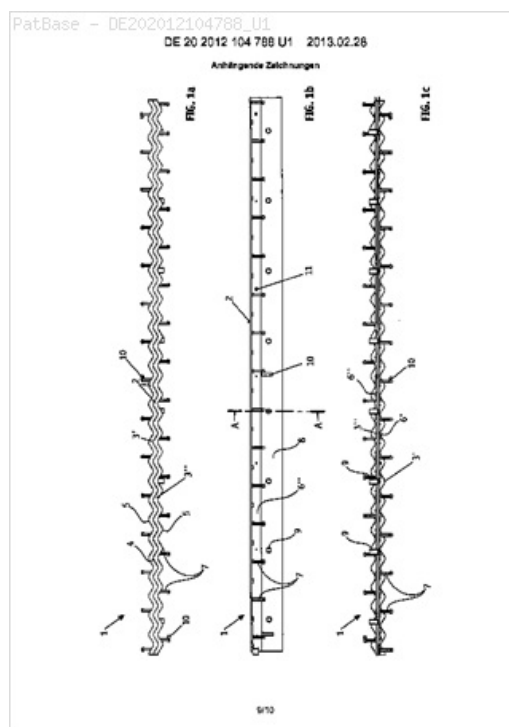
Abstract: Source: DE202012104788U1 [DE] Schalungselement (1) fuer den Fussbodenbau fuer den Kantenschutz, die Spaltueberbrueckung und die Verbindung benachbarter Bodenfelder, die aus einem bei der Verarbeitung flie遢faehigen Bodenmaterial gegossen sind, mit einem nach dem bestimmungsgemaessen Einbau buendig mit der Bodenoberflaeche abschliessenden Schalungsabschluss (2), dadurch gekennzeichnet, dass der Schalungsabschluss (2) von einem ersten Flachprofil (3') mit einer inneren Kante (4) und einer aeusseren Kante (5), das auf einer ersten Unterkonstruktion (6') einer ersten Schalungsseite liegend befestigt ist, und einem zweiten Flachprofil (3'') mit einer inneren Kante (4) und einer aeusseren Kante (5), das auf einer zweiten Unterkonstruktion (6'') einer zweiten Schalungsseite liegend befestigt ist, gebildet ist, wobei die inneren Kanten (4) und die aeusseren Kanten (5) der Flachprofile (3', 3'') eine nicht-linearen Verlauf aufweisen.

Machine translation: Formwork element (1) for the **floor** construction for the edge protection that Spaltueberbrueckung and the connection of adjacent bottom panels, which are molded from a flie遢faehigen in processing soil material, with a flush after bestimmungsgemaessen installation with Bodenoberflaeche final formwork termination (2), characterized in that the mold end (2) of a first flat section (3') having an inner edge (4) and an outer edge (5) provided on a first sub-structure (6') is a first formwork side mounted horizontally, and a second Low profile (3'') having an inner edge (4) and an outer edge (5), which on a second support structure (6'') is a second casing side secured lying is formed, wherein the inner edges (4) and the outer edges (5) of the flat sections (3', 3'') have a non-linear course.

Classifications:

International (IPC 8-9): E01C11/08 E04F15/14 (Advanced/Invention)

CPC: E04F15/142 E01C11/08



Family:

Publication number	Publication date	Application number	Application date
DE202012104788 U1	20130104	DE201220104788U	20121210

Priority:

DE201220104788U 20121210

Probable Assignee: HSD INDUSTRIEBELAEGE GMBH

Assignee(s): (std): HSD INDUSTRIEBELAEGE GMBH

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE202012104788 U1	20130104	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202012104788 U1	20130228	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20130228
DE202012104788 U1	20151028	LSGT	+R150	UTILITY MODEL MAINTAINED AFTER PAYMENT OF FIRST MAINTENANCE FEE AFTER THREE YEARS	
DE202012104788 U1	20181217	LSGT	+R151	UTILITY MODEL MAINTAINED AFTER PAYMENT OF SECOND MAINTENANCE FEE AFTER SIX YEARS	

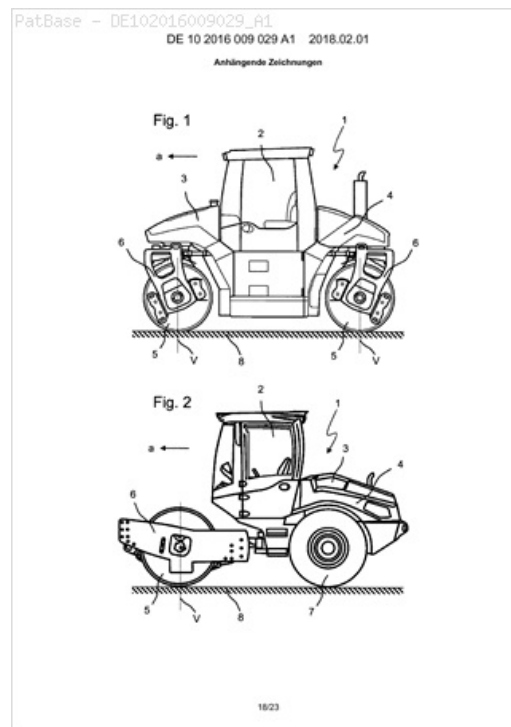
Title: BODENVERDICHTUNGSMASCHINE MIT ENERGIEUEBERTRAGUNGSEINRICHTUNG ZUR VERSORGUNG EINER SENSOREINRICHTUNG ZUR BESTIMMUNG DER BODENSTEIFIGKEIT MIT ELEKTRISCHER ENERGIE UND VERFAHREN ZUR HERSTELLUNG BZW. BETRIEB Soil compaction MACHINE WITH ENERGY TRANSMISSION DEVICE TO SUPPLY A SENSOR DEVICE TO DETERMINE THE GROUND STIFFNESS WITH ELECTRICAL ENERGY AND PROCESS FOR PRODUCING OR. Operating (Machine translation)

Abstract: Source: DE102016009029A1 [DE] Die Erfindung betrifft eine Bodenverdichtungsmaschine (1), insbesondere Bodenverdichtungswalze oder handgeführte Bodenverdichtungsmaschine, mit einer von einer Antriebseinrichtung (4) angetriebenen Welle (16, 44, 49, 54) und einer wenigstens einen Beschleunigungssensor (21) umfassenden Sensoreinrichtung (19) zur Bestimmung der Bodensteifigkeit eines zu verdichtenden Bodens (8), wobei die Welle (16, 44, 49, 54) ueber einen radialen und/oder axialen Luftspalt (69) von der Sensoreinrichtung (19) beabstandet ist, dass eine Energieuebertragungseinrichtung (65) vorhanden ist, die beruehrungslos Energie von der Welle (16, 44, 49, 54) ueber den Luftspalt (69) auf die Sensoreinrichtung (19) uebertraegt, und dass die Versorgung mit elektrischer Energie der Sensoreinrichtung (19), insbesondere ausschliesslich, durch die von der Energieuebertragungseinrichtung (65) uebertragene Energie erfolgt. Die Erfindung betrifft weiter ein Verfahren (32) zum Betrieb einer wenigstens einen Beschleunigungssensor (21) umfassenden Sensoreinrichtung (19) zur Ermittlung der Bodensteifigkeit waehrend der Bodenverdichtung mit einer Bodenverdichtungsmaschine (1) und ein Verfahren (56) zum Herstellen oder Nachruesten einer Bodenverdichtungsmaschine (1). **Machine translation:** The invention relates to a soil compaction machine (1), and in particular soil compaction roller or handheld soil compaction machine with one of a drive device (4) is driven shaft (16, 44, 49, 54) and at least one acceleration sensor (21) comprehensive sensor device (19) for the determination of the soil to be compacted stiffness of a base (8), wherein the shaft (16, 44, 49, 54) via a radial and/or axial air gap (69) is spaced apart from the sensor device (19) that a power transmission device (65) is provided which is remote energy from the shaft (16, 44, 49, 54) through the air gap (69) to the sensor device (19), and that the supply of electrical energy to the sensor device (19), and in particular exclusively, by the power transmitting device (65) is transmitted energy. The invention further relates to a method (32) for operating at least one acceleration sensor (21) comprehensive sensor device (19) for the determination of the ground stiffness during the soil compaction with a soil compaction machine (1) and a method (56) for producing or retrofitting a soil compaction machine (1).

Classifications:

International (IPC 8-9): E01C19/22 E01C19/26 E01C19/30 E02D3/02 (Advanced/Invention)

CPC: E02D3/02 E01C19/233 E01C19/288 E01C19/35 E01C19/38



Family:

Publication number	Publication date	Application number	Application date
DE102016009029 A1	20180201	DE201610009029	20160726

Priority:

DE201610009029 20160726

Probable Assignee:

BOMAG GMBH

Assignee(s): (std):

BOMAG GMBH

Inventor(s): (std):

LAUGWITZ NIELS

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102016009029 A1	20180201	LSPB	+	published / reissued	

Title: Vorrichtung zum Um- oder Ausruesten von Umschlag- oder Abfuellplaetzen von Mineraloelen

Abstract: Source: DE9407394U1 [DE] (Claim 1) 1. Vorrichtung zum Um-und/oder Ausruesten, insbesondere zum Befestigen und Abdichten, von Umschal- und/oder Abfuellanlagen (1) fuer Mineraloele, die mindestens einen Abfuellplatz mit Befuelleinrichtung (8) und/oder Abgabeeinrichtung (3,4) fuer die Mineraloele aufweisen, dadurch gekennzeichnet, dass sie als Wanne (10) ausgebildet ist. **Machine translation:** (1) 1. Apparatus for and/or equipping, more particularly for attaching and sealing, Umschal and/or bottling plants for mineral oils (1), the at least one packaging space with filler llei direction (8) and/or output device (3,4) for the mineral oils, characterized in that it comprises, as well (10) is formed.

Classifications:

International (IPC 8-9): B67D7/32 B67D7/84

E02D31/00 (Advanced/Invention);

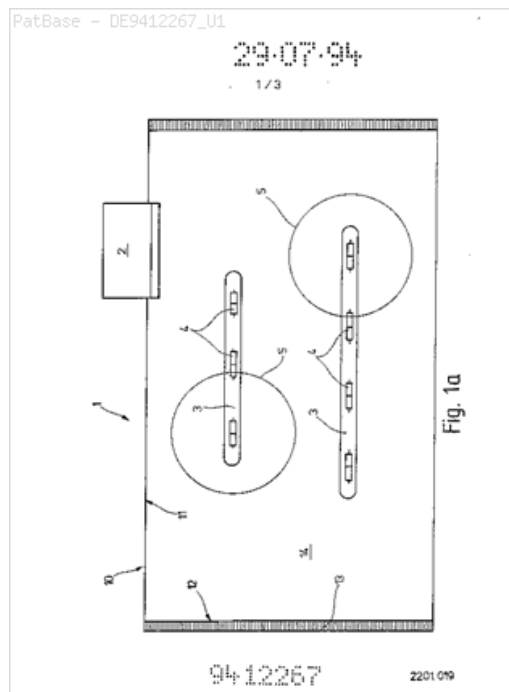
B67D7/32 B67D7/84 E02D31/00 (Core/Invention)

International (IPC 1-7): B65D90/24 B65D90/50 B67D5/04 E01C9/00

E02D31/00 E04B1/68 E04H9/00

CPC: B67D7/84 E02D31/00 B67D7/3209

European: B67D7/32B B67D7/84 E02D31/00



Family:

Publication number	Publication date	Application number	Application date
DE9407394 U1	19940825	DE19940007394U	19940504
DE9412267 U1	19941013	DE19940012267U	19940729

Priority:

DE19934328204 19930821 DE19940007394U 19940504 DE19940012267U 19940729

Probable Assignee: KAEPLER KLAUS THOMAS DR

Assignee(s): (std): KAEPLER KLAUS THOMAS DR

Assignee(s): KAEPLER KLAUS THOMAS DR 70180 STUTTGART DE

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE9407394 U1	19940825	LSGT	+	granted / extensions (spc, cpc, pte)	
DE9407394 U1	20040504	PEXP		Calculated Patent Term Expiry	
DE9412267 U1	19941013	LSGT	+	granted / extensions (spc, cpc, pte)	
DE9412267 U1	20040729	PEXP		Calculated Patent Term Expiry	

Title: Fugenprofil

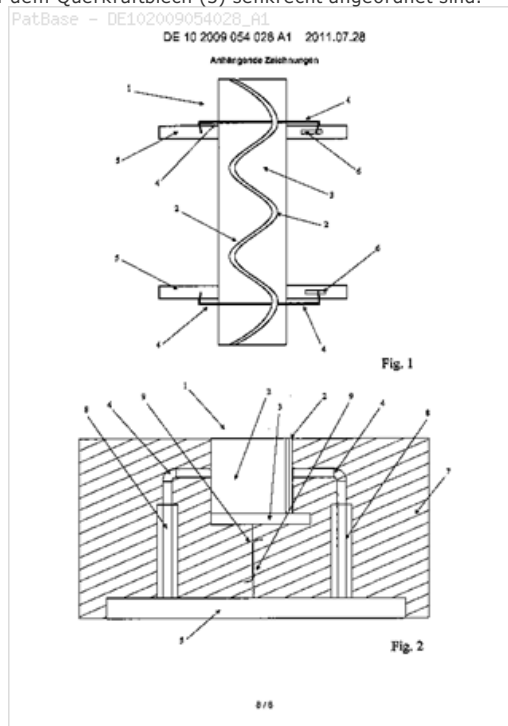
Abstract: Source: DE102009054028B4 [DE] Fugenprofil zur ueberbrueckung einer Fuge zwischen zwei Bauwerksteilen, insbesondere Betonplatten (7), mit zwei sich gegeneuberliegenden, im eingebauten Zustand an sich gegeneuberliegenden Fugenlaibungen anliegenden, senkrecht verlaufenden Kantenschutzblechen (2), wobei die Oberflaechen der Kantenschutzbleche (2) in Laengsrichtung der Fuge wellen- oder zick-zack-foermig verlaufen, der Wellen- oder Zick-Zack-Verlauf der beiden Kantenschutzbleche (2) synchron ist und die Kantenschutzbleche (2) zumindest teilweise ineinander greifen, dadurch gekennzeichnet, dass zumindest ein Kantenschutzblech (2) rechtwinklig mit einem in Laengsrichtung der Fuge verlaufenden Querkraftblech (3) verbunden ist, wobei beide Kantenschutzbleche (2) auf dem Querkraftblech (3) senkrecht angeordnet sind.

Classifications:

International (IPC 8-9): E01C11/08 E01D19/06 (Advanced/Invention)

CPC: E01D19/06

European: E01D19/06



Family:

Publication number	Publication date	Application number	Application date
DE102009054028 A1	20110728	DE200910054028	20091119
DE102009054028 B4	20130131	DE200910054028	20091119

Priority:

DE200910054028 20091119

Probable Assignee:

OBELODE SABINE

Assignee(s): (std):

OBELODE SABINE

Assignee(s):

OBELODE

Inventor(s): (std):

OBELODE SABINE

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102009054028 A1	20110728	LSPB	+	published / reissued	
DE102009054028 A1	20121026	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102009054028 A1	20121120	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102009054028 B4	20130131	LSGT	+	granted / extensions (spc, cpc, pte)	
DE102009054028 B4	20130801	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : CBL CHEMOBAU INDUSTRIEBODEN GMBH, DE OLDPARTY : FORMER OWNER: OBELODE, SABINE, 44652 HERNE, DE EFFECTIVE DATE : 20130612

DE102009054028 B4	20130801	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : HSD INDUSTRIEBELAEGE GMBH, DE OLDPARTY : FORMER OWNER: OBELODE, SABINE, 44652 HERNE, DE EFFECTIVE DATE : 20130612
DE102009054028 B4	20130808	LSGT	+R020	PATENT GRANT NOW FINAL	EFFECTIVE DATE : 20130501
DE102009054028 B4	20141016	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : HSD INDUSTRIEBELAEGE GMBH, DE OLDPARTY : FORMER OWNER: CBL CHEMOBAU INDUSTRIEBODEN GMBH, 74211 LEINGARTEN, DE EFFECTIVE DATE : 20140910
DE102009054028 B4	20291119	PEXP		Calculated Patent Term Expiry	

Abstract: **Joint** used to prevent cracks from occurring in a concrete **floor**. The **joint** comprises a body of soft material such as foamed styrol and urethane, a capping member of synthetic resin arranged on the top of body, and leg members for supporting and positioning the body on which the capping member has been mounted at the time of the concrete deposit, said leg members being adjustable to raise or lower the body.

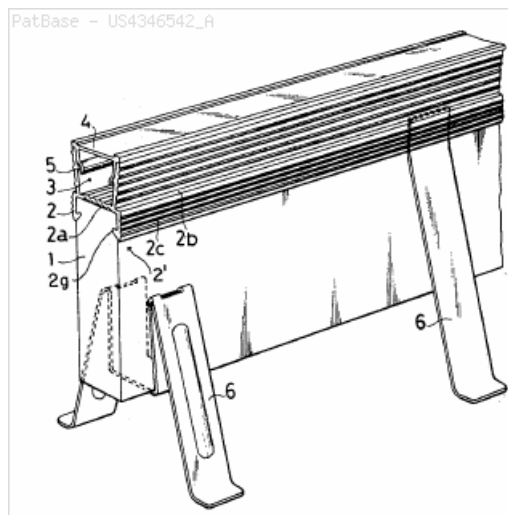
Classifications:

International (IPC 1-7): E01C11/10 E04F15/14

CPC: E01C11/10 E01C11/106 E04F15/14

European: E01C11/10 E01C11/10C E04F15/14

US: 404/48 404/68 52/396 52/396.02



Family:

Publication number	Publication date	Application number	Application date
US4346542 A	19820831	US19790055606	19790709

Priority:

US19790055606 19790709

Probable Assignee:

TATENO KOHKICHI

Assignee(s): (std):

TATENO KOHKICHI

Inventor(s): (std):

TATENO KOHKICHI

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US4346542 A	19820831	LSGT	+	granted / extensions (spc, cpc, pte)	
US4346542 A	19820831	LSGT	PAT1	Patented Case	
US4346542 A	19820831	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

Title: **EXPANSION JOINTS** FOR REINFORCED CONCRETE ROADS - COMPRISING ELASTIC PADS OF ENERGY DAMPING ASPHALT

Abstract: **Expansion** gaps between the structural slabs of a reinforced road are disguised by bridging the gaps with a 'T' profile pad incorporating coarse metallic mesh in a cast asphalt composition of high damping capacity. The asphalt matrix pref. incorporates by wt. 15-25 percent bitumen, 2-8 percent resin (polypropylene), 2-10 percent asbestos fibres, 10-70 percent filler, 20-40 percent sand, 20-40 percent fine gravel and 0-5 percent crumb rubber. Pads are sufficiently viscoelastic to accommodate relative thermal movements of adjacent slab edges, strong enough to support traffic loads and have sufficient damping capacity to suppress dynamic fatigue of the pad against the edges of the supporting panels.

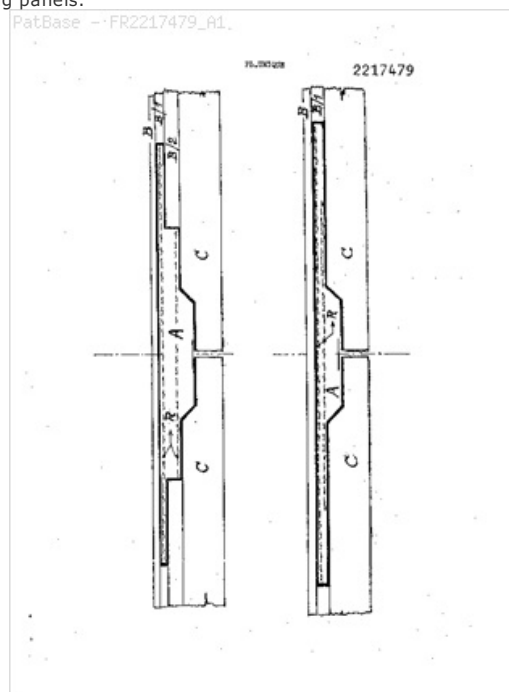
Classifications:

International (IPC 8-9): E01D19/06 (Advanced/Invention);
E01D19/00 (Core/Invention)

International (IPC 1-7): E01C11/12 E01D19/06

CPC: E01D19/06 E01D19/067

European: E01D19/06 E01D19/06D



Family:

Publication number	Publication date	Application number	Application date
FR2217479 A1	19740906	FR19740003887	19740130
FR2217479 B3	19780310	FR19740003887	19740130
IT982480 A	19741021	IT19730020266	19730212

Priority:

IT19730020266 19730212

Probable Assignee: INVERNIZZI L

Assignee(s): (std): INVERNIZZI L ; INVERNIZZI LUIGI

Assignee(s): INVERNIZZI LUIGI IT

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
FR2217479 A1	19740906	LSPB	+	published / reissued	
FR2217479 B3	19780310	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2217479 B3	19780317	LSLE	-ST	NOTIFICATION OF LAPSE	
FR2217479 B3	19800130	PEXP		Calculated Patent Term Expiry	
IT982480 A	19741021	LSGT	+	granted / extensions (spc, cpc, pte)	
IT982480 A	19930212	PEXP		Calculated Patent Term Expiry	

Title: PREFABRICATED MOVEMENT **JOINT** SYSTEM FOR CONCRETE **FLOORS**

Abstract: The invention relates to a prefabricated movement **joint** system with top edge rails providing protection for the concrete **floor** slab edges. The top edge rails may have a plurality of anchors to embed in the concrete and position the system, which are formed from the parent steel of the rail and not for example welded on. When the top edge rails are joined back to back with the possible use of yieldable fixings they clamp and hold in position possible a nylon or other plastic shaped extrusion and the divider plate thus comprising the whole of the assembled system.

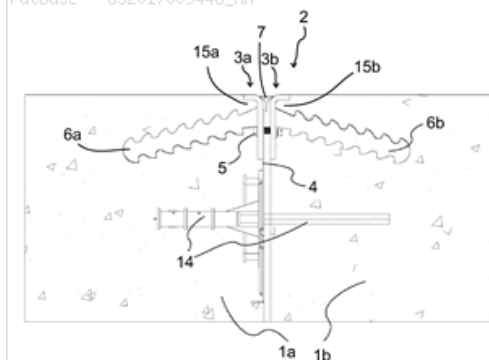
Classifications:

International (IPC 8-9): E01C11/00 E01C11/02 E01C11/08 E01C11/12 E01C11/14 E01C11/16 E04B1/04 E04B1/48 E04B1/61 E04B1/68 E04B5/00 E04B5/02 E04B5/40 E04C5/01 E04C5/07 E04C5/12 E04C5/16 E04F15/14 (Advanced/Invention)

CPC: E01C11/08 E04B1/681 E04F15/142 E01C11/126 E01C11/14 E04B1/483 E04B5/023 E04B1/61 E04B5/40 E04B2005/322 E04B2103/02

US: 1/1 52/378

PatBase - US2017009446_AA



Family:

Publication number	Publication date	Application number	Application date
AU2014201090 AA	20150903	AU20140201090	20140228
AU2015216827 AA	20160714	AU20150216827	20150213
AU2015216827 BB	20190307	AU20150216827	20150213
DE602015030719 D1	20190613	DE201560030719T	20150213
EA029728 B1	20180531	EA20160091583	20150213
EA201691583 A1	20170130	EA20160091583	20150213
EP3111011 A1	20170104	EP20150707692	20150213
EP3111011 B1	20190522	EP20150707692	20150213
FI125421 B	20151015	FI20140005148	20140214
FI20145148 A	20150815	FI20140005148	20140214
NZ621895 A	20150327	NZ20140621895	20140228
PL3111011 T3	20200228	PL20150707692T	20150213
PT3111011 T	20190910	PT20150707692T	20150213
US2017009446 AA	20170112	US20150113322	20150213
WO15121538 A1	20150820	WO2015FI50088	20150213

Priority:

FI20140005148	20140214	AU20140201090	20140228	NZ20140621895	20140228
AU20150216827	20150213	EP20150707692	20150213	WO2015FI50088	20150213

Probable Assignee: PEIKKO GROUP OY

Assignee(s): (std): PEIKKO GROUP OY

Inventor(s): (std): EVE PATRICK ; PATRICK EVE

Agent(s): AJ PARK; PHILLIPS ORMONDE FITZPATRICK; BOCO IP OY 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 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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU2014201090 AA	20150903	LSPB	+	published / reissued	
AU2014201090 AA	20190725	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2015216827 AA	20160714	LSPB	+	published / reissued	
AU2015216827 BB	20190307	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2015216827 BB	20190704	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD	

PATENT)						
AU2015216827 BB	20350213	PEXP		Calculated Patent Term Expiry		
EA029728 B1	20180531	LSGT	+	granted / extensions (spc, cpc, pte)		
EA029728 B1	20191031	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 : AZ COUNTRY OF REF DOCUMENT : KG COUNTRY OF REF DOCUMENT : TJ COUNTRY OF REF DOCUMENT : TM	
EA029728 B1	20350213	PEXP		Calculated Patent Term Expiry		
EA201691583 A1	20170130	LSPB	+	published / reissued		
EP3111011 A1	20170104	LSPB	+	published / reissued		
EP3111011 A1	20170104	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160909	
EP3111011 A1	20180530	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20180425	
EP3111011 A1	20181205	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181102	
EP3111011 A1	20190515	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190410	
EP3111011 B1	20190522	LSGT	+	granted / extensions (spc, cpc, pte)		
EP3111011 B1	20190522	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D	
EP3111011 B1	20190531	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP	
EP3111011 B1	20190612	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D	
EP3111011 B1	20190613	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602015030719 COUNTRY OF REF DOCUMENT : DE	
EP3111011 B1	20190615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1136265 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190615	
EP3111011 B1	20191010	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D	
EP3111011 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522	
EP3111011 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522	
EP3111011 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : NL	

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190822
EP3111011 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190823
EP3111011 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190822
EP3111011 B1	20191215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1136265 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190522
EP3111011 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE :

				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 : 20190522
EP3111011 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200225	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602015030719 COUNTRY OF REF DOCUMENT : DE
EP3111011 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190522
EP3111011 B1	20200429	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20200225
EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20200214 YEAR OF FEE PAYMENT : 6

EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20200218 YEAR OF FEE PAYMENT : 6
EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20200127 YEAR OF FEE PAYMENT : 6
EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20200218 YEAR OF FEE PAYMENT : 6
EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20200121 YEAR OF FEE PAYMENT : 6
EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20200220 YEAR OF FEE PAYMENT : 6
EP3111011 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20200219 YEAR OF FEE PAYMENT : 6
EP3111011 B1	20350213	PEXP		Calculated Patent Term Expiry	
FI125421 B	20151015	LSGT	+	granted / extensions (spc, cpc, pte)	
FI125421 B	20151015	LSGT	+FG	PATENT GRANTED	REF DOCUMENT NUMBER : 125421 COUNTRY OF REF DOCUMENT : FI KIND CODE OF REF DOCUMENT : B DESIGNATED STATE(S) :
FI125421 B	20340214	PEXP		Calculated Patent Term Expiry	
FI20145148 A	20150815	LSPB	+	published / reissued	
NZ621895 A	20150327	LSPB	+	published / reissued	
NZ621895 A	20150731	LSGT	+PSEA	PATENT SEALED	
NZ621895 A	20180223	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 28 FEB 2019 BY CPA GLOBAL(PATRALEE) AB EFFECTIVE DATE : 20180208
NZ621895 A	20190222	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 28 FEB 2020 BY CPA GLOBAL(PATRALEE) AB EFFECTIVE DATE : 20190218
NZ621895 A	20200228	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 28 FEB 2021 BY CPA GLOBAL (PATRALEE) AB EFFECTIVE DATE : 20200213
PL3111011 T3	20200228	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3111011 T	20190910	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3111011 T	20350213	PEXP		Calculated Patent Term Expiry	
US2017009446 AA	20170112	LSPB	+	published / reissued	
US2017009446 AA	20160721	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PEIKKO GROUP OY, FINLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:EVE, PATRICK; REEL/FRAME:039214/0521 EFFECTIVE DATE : 20160630
US2017009446 AA	20170224	LSSES	NFA1	Non Final Action Mailed	

US2017009446 AA	20170929	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO15121538 A1	20150820	LSPB	+	published / reissued	
WO15121538 A1	20160714	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2015216827 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20150213 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15121538 A1	20160721	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 15113322 COUNTRY OF REF DOCUMENT : US
WO15121538 A1	20160816	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO15121538 A1	20160906	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201691583 COUNTRY OF REF DOCUMENT : EA
WO15121538 A1	20160909	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2015707692 COUNTRY OF REF DOCUMENT : EP

Title: CONCRETE SLAB **JOINT** STABILIZING SYSTEM AND APPARATUS

Abstract: A **joint** stabilizing apparatus having an expandable cylindrical housing is inserted into a circular hole drilled at a "loose **joint**" of a concrete slab that is to be stabilized against relative vertical displacement between adjacent slab sections. The hole is drilled downward into the concrete, centered on the plane of a lateral opening/**joint** in the concrete slab. The expandable housing comprises two rigid semi-circular housing halves, and the assembly is oriented inside of the circular hole such that the two housing halves are on opposite sides of the centerline of the lateral opening/**joint**. The housing halves are pushed apart by turning of a threaded bolt inside of the housing. Turning of the bolt causes two bi-laterally symmetric wedge blocks to draw towards each other, and pressing the bearing surfaces of the wedge blocks against inclined surfaces inside of the respective housing halves. As the housing halves are pushed apart, the outside surfaces of the expandable housing engage the walls of the drilled hole and apply opposing horizontal compressive forces to the slab sections. Friction between the expandable housing and the concrete slab sections prevent the slab sections from vertically moving relative to each other. In other embodiments of the invention, the **joint** stabilizing apparatus is used to prevent relative motion between non-horizontal construction members, and between four adjacent slab sections separated by intersecting loose **joints**.

Classifications:

International (IPC 8-9): E01C11/02 E01C11/06 E01C11/10 E01C11/14

E01C11/16 E01D19/06 (Advanced/Invention);

E01C11/02 (Advanced/Non-invention);

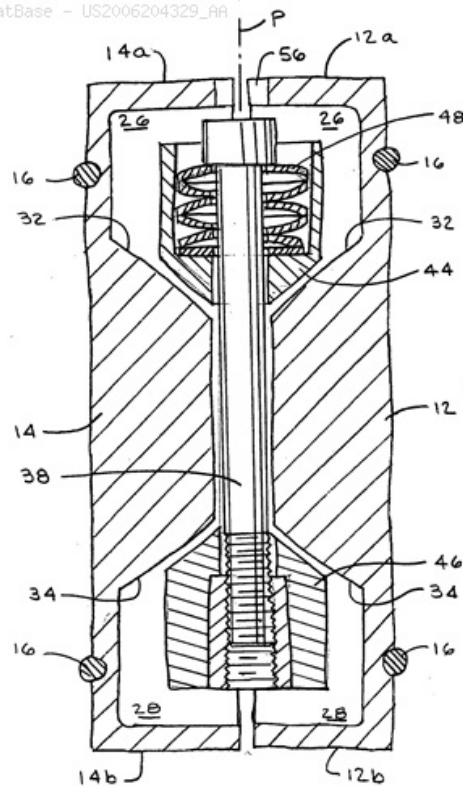
E01C11/00 E01C11/02 E01D19/00 (Core/Invention)

CPC: Y02A30/68 E01C11/14 E01C7/147

European: E01C11/14 E01C7/14D

US: 14/73.1 14/73.5 14/73.500S 404/47 404/49 404/51 404/60 404/60P 404/71

PatBase - US2006204329_AA



Family:

Publication number	Publication date	Application number	Application date
AU2006318807 AA	20070531	AU20060318807	20061116
AU2006318807 AH	20080724	AU20060318807	20061116
CA2630204 AA	20080516	CA20062630204	20061116
CA2630204 C	20131022	CA20062630204	20061116
EP1948866 A2	20080730	EP20060837874	20061116
EP1948866 A4	20131002	EP20060837874	20061116
US2006204329 AA	20060914	US20050281762	20051117
US7334963 BB	20080226	US20050281762	20051117
WO07061821 A2	20070531	WO2006US44624	20061116
WO07061821 A3	20080131	WO2006US44624	20061116

Priority:

US20050659071P 20050308

US20050281762 20051117

WO2006US44624 20061116

Probable Assignee: ILLINOIS TOOL WORKS INC

Assignee(s): (std): IM DO S ; IM DO SUN ; ROBERT COSTA ; SURFACE DYNAMICS INC ; SUN IM ; COSTA ROBERT P ; DO IM

Assignee(s): ILLINOIS TOOL WORKS INC

Inventor(s): (std): COSTA ROBERT P ; IM DO S ; IM DO SUN

Inventor(s): IM DO ; COSTA ROBERT ; ROBERT P COSTA ; DO SUN IM

Agent(s): PHILLIPS ORMONDE FITZPATRICK; ROBIC; GILHOLM STEPHEN PHILIP; STEPHEN E CLARK; CLARK STEPHEN E; STEPHEN E

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2006318807 AA	20070531	LSPB	+	published / reissued	
AU2006318807 AH	20100715	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2006318807 AH	20101104	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : SURFACE DYNAMICS, INCORPORATED OLDPARTY : FORMER APPLICANT(S): COSTA, ROBERT; IM, DO
CA2630204 AA	20080516	LSPB	+	published / reissued	
CA2630204 AA	20111108	LSSES	+EEER	EXAMINATION REQUEST	
CA2630204 C	20131022	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2630204 C	20261116	PEXP		Calculated Patent Term Expiry	
EP1948866 A2	20080730	LSPB	+	published / reissued	
EP1948866 A2	20080730	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080523
EP1948866 A4	20131002	LSSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130902
EP1948866 A4	20140730	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20140702
EP1948866 A4	20150506	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20141113
US2006204329 AA	20060914	LSPB	+	published / reissued	
US2006204329 AA	20071226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SURFACE DYNAMICS, INCORPORATED, KENTUCKY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: COSTA, ROBERT; IM, DO SUN; REEL/FRAME: 020300/0010 EFFECTIVE DATE : 20060717
US2006204329 AA	20080206	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7334963 BB	20080226	LSGT	+	granted / extensions (spc, cpc, pte)	
US7334963 BB	20080206	LSGT	PAT1	Patented Case	
US7334963 BB	20110721	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7334963 BB	20150728	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7334963 BB	20170731	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ILLINOIS TOOL WORKS INC., ILLINOIS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: SURFACE DYNAMICS, INC.; REEL/FRAME: 043141/0599 EFFECTIVE DATE : 20170721
US7334963 BB	20190826	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7334963 BB	20260509	PEXP		Calculated Patent Term Expiry (PTA 173 days)	
WO07061821 A2	20070531	LSPB	+	published / reissued	
WO07061821 A3	20080516	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2630204 COUNTRY OF REF DOCUMENT : CA

WO07061821 A3	20080519	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12008501182 COUNTRY OF REF DOCUMENT : PH
WO07061821 A3	20080520	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO07061821 A3	20080523	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006837874 COUNTRY OF REF DOCUMENT : EP
WO07061821 A3	20080617	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006318807 COUNTRY OF REF DOCUMENT : AU
WO07061821 A3	20080617	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 569192 COUNTRY OF REF DOCUMENT : NZ
WO07061821 A3	20080710	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2006318807 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20061116 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

Title: PEOPLE AND CARGO TRANSIT SYSTEMS AND VEHICLES

Abstract: The Application discloses People and Cargo Transit Systems and Vehicles (PCTSV), using Narrow Vehicles (NV), which can have the form of a Bus, Train, Tram, Maglev, Mono-Rail or even Car or Truck. A preferred version of which is Single Seat Wide or below 70 cm wide, preferably a Bus type to need no Rail, using Dedicated Narrow Lanes adjacent to Curbside of existing intra-city streets or limits of inter-city roads. Said NV and Lane have Anti-Roll Over Means to stabilize such a narrow vehicle, which also eliminate NV Swaying even when NV is a Bus or Car with has no inherent Sway Limiting. Being Ultra Narrow with No Sway and Running at Curbside results in Negligible or No Blocking of other vehicles by NV. Said Lane/Tack, Anti-Sway and Anti-Roll Structures all Allow being Run Over by other Traffic and have structures not to be damaged, thus can be crossed over at Crossroads and other entrances and exits along said Lane. NV has enough Doors and is Narrow, hence each Passenger can reach a seat or exit, with No Isle inside it to walk along. So it can have Low Profile, like a Sports Car, some 120 cm tall. Hence it is easy to have Covered Trenches at cross roads for non-stop crossing. Trenches can run along most or all the Track, in which case adherence to streets and roads is relieved. Such Narrow and Shallow Trenches take a tiny fraction of time and costs of Skyways or Subways. Each Passenger thus can have her own door, own seat, in a small Cabin, which can be opened and closed to next Cabin, have reclining seats to join to that of next Cabin to sleep on, have laptop tray, etc. All those make PCTSV much more appealing to user's, even better than private transport. There are many Variations other than above. There is an NV Car for the last mile and or long distance use, which can integrate with NV Public Transit. Also modifications to NVs for use in Cargo and Parcel Transit.

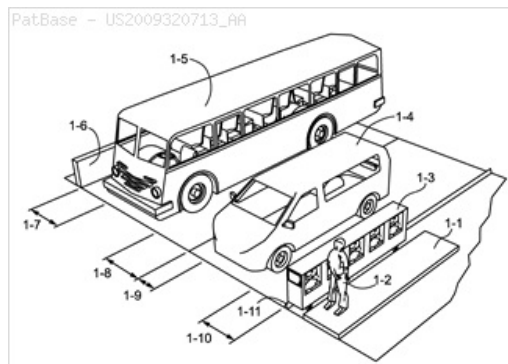
Classifications:

International (IPC 8-9): B60G21/00 B60G21/10 B60L13/00 B60L13/04 B60L15/32 B60R21/13 B60T1/14 B61B13/00 B61D1/02 B61D1/04 B61D13/00 B61F9/00 B62D55/02 B62D55/06 B62D55/18 E01B25/28 E01C1/04 F16D63/00 (Advanced/Invention); B60L13/00 B60L13/04 B60L15/00 B60R21/13 B61B13/00 B61D13/00 B61F9/00 E01B25/00 E01C1/00 F16D63/00 (Core/Invention)

CPC: B60G21/002 B60G21/005 B60G21/103 B60G21/106 B60T1/14 B61D13/00 B61D1/04 B61D1/02 E01C1/04 F16D63/00 B61F9/00 Y02T30/30 B62D55/02 B62D55/06 B62D55/18 B61B13/10 B61D1/06 B62D33/02 B61B13/00 B61B13/04 B61B13/06 B62D24/04 E01B25/28

European: B61B13/00 B61B13/04 B61B13/06 B61F9/00 B62D24/04 E01B25/28 E01C1/04 F16D63/00 Y02T30/30

US: 1/1 104/242 104/281 104/306 104/306S 104/307 104/307S 105/343 105/345 180/9.34 280/1 280/1S



Family:

Publication number	Publication date	Application number	Application date
EP2318253 A1	20110511	EP20090768655	20090522
EP2318253 A4	20140101	EP20090768655	20090522
GB200908705 A0	20090701	GB20090008705	20090521
GB201216949 A0	20121107	GB20120016949	20090521
GB201217026 A0	20121107	GB20120017026	20090521
GB2461148 A1	20091230	GB20090008705	20090521
GB2492275 A1	20121226	GB20120016949	20090521
GB2492275 B2	20130206	GB20120016949	20090521
GB2493466 A1	20130206	GB20120017026	20090521
US2009320713 AA	20091231	US20090470433	20090521
US2011107939 AA	20110512	US20090001419	20090522
US2014261057 AA	20140918	US20140252062	20140414
US2016311478 AA	20161027	US20160201954	20160705
WO09155685 A1	20091230	WO2009CA00671	20090522

Priority:

US20080075348 20080625	US20080075348P 20080625	US20090155851P 20090226
US20090155851 20090226	US20090178413 20090514	US20090178413P 20090514
US20090470433 20090521	US20090001419 20090522	WO2009CA00671 20090522
US20100001419 20101224	US20140252062 20140414	US20160201954 20160705

Probable Assignee: AMIRI AHMAD

Assignee(s): (std): AMIRI AHMAD

Assignee(s): AHMAD AMIRI ; INVENTALL INC

Inventor(s): (std): AMIRI AHMAD

Inventor(s): AHMAD AMIRI

Agent(s): AHMAD AMIRI

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 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 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
EP2318253 A1	20110511	LSPB	+	published / reissued	

EP2318253 A1	20110511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101229
EP2318253 A4	20140101	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20131129
EP2318253 A4	20140702	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : AMIRI, AHMAD
EP2318253 A4	20160525	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20151201
GB2461148 A1	20091230	LSPB	+	published / reissued	
GB2461148 A1	20130417	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
GB2492275 A1	20121226	LSPB	+	published / reissued	
GB2492275 B2	20130206	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2492275 B2	20290521	PEXP		Calculated Patent Term Expiry	
GB2493466 A1	20130206	LSPB	+	published / reissued	
GB2493466 A1	20130417	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
US2009320713 AA	20091231	LSPB	+	published / reissued	
US2009320713 AA	20120112	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009320713 AA	20130228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INVENTALL INC., CANADA OLDPARTY : LIEN; ASSIGNOR:AMIRI, AHMAD, MR.; REEL/FRAME:029895/0584 EFFECTIVE DATE : 20130227
US2011107939 AA	20110512	LSPB	+	published / reissued	
US2011107939 AA	20130228	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INVENTALL INC., CANADA OLDPARTY : LIEN; ASSIGNOR:AMIRI, AHMAD, MR.; REEL/FRAME:029895/0584 EFFECTIVE DATE : 20130227
US2011107939 AA	20140813	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014261057 AA	20140918	LSPB	+	published / reissued	
US2014261057 AA	20141106	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INVENTALL INC., CANADA OLDPARTY : SECURITY INTEREST; ASSIGNOR:AMIRI, AHMAD; REEL/FRAME:034121/0559 EFFECTIVE DATE : 20130227
US2014261057 AA	20160926	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2016311478 AA	20161027	LSPB	+	published / reissued	
US2016311478 AA	20180416	LSES	NFA1	Non Final Action Mailed	
US2016311478 AA	20190329	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO09155685 A1	20091230	LSPB	+	published / reissued	
WO09155685 A1	20101223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009768655 COUNTRY OF REF DOCUMENT : EP

WO09155685 A1	20101224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13001419 COUNTRY OF REF DOCUMENT : US
WO09155685 A1	20101228	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE

Title: BRIDGING OF AUTOMATIC CLEANING TYPE **EXPANSION** DEVICE OF QUICK HEAT RADIATION

Abstract: PROBLEM TO BE SOLVED: To provide bridging of an automatic cleaning type **expansion** device of quick heat radiation. SOLUTION: The invention is to provide bridging of an automatic cleaning type **expansion** device of quick heat radiation. The automatic cleaning type **expansion** device includes an upper elastic cover item (62) and a lower elastic cover item (61) with **expansion** sewing between a left half frame item (3) and a right half frame item (4), covered above a road surface and below a road surface of bridging, between the left half frame item (3) and the right half frame item (4), as well as the left half frame item (3) and the right half frame item (4). In cavities (30, 40) surrounded with the left half frame item (3), the right half frame item (4), the upper elastic cover item (62) and the lower elastic cover item (61), a first shifting clean panel (9) and a second shifting clean panel (8) which are arrayed along to and fro directions are installed. SELECTED DRAWING: Figure 2

Classifications:

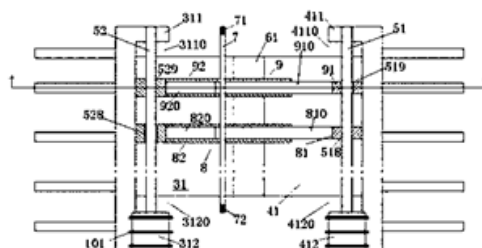
International (IPC 8-9): E01C11/02 E01D19/06 E01D22/00
E01H1/00 (Advanced/Invention)

CPC: E01D22/00 E01D19/06

JP F-Term: 2D051 2D051/FA04 2D051/FA11 2D051/FA17 2D051/FA21
2D051/FA23

JP F-Index: E01C11/02/A

PatBase - JP2017020326_A2



Family:

Publication number	Publication date	Application number	Application date
CN104963284 A	20151007	CN201510403210	20150710
CN104963284 B	20160601	CN201510403210	20150710
DE102016112623 A1	20170112	DE201610112623	20160710
DE102016112623 B4	20180913	DE201610112623	20160710
JP2017020326 A2	20170126	JP20160094032	20160509

Priority:

CN201510403210 20150710 JP20160094032 20160509

Probable Assignee: WENZHOU MUDI TRADE CO LTD

Assignee(s): (std): WEN ZHOU SHI MOU DI TRADING CO LTD ; WENZHOU CITY MOU DI TRADE CO LTD ; WENZHOU MUDI TRADE CO LTD

Assignee(s): MU DI TRADE CO LTD WENZHOU CITY ; WENZHOU MUDI TRADE CO ; WENZHOU CITY MOU DI TRADE CO

Inventor(s): (std): AO ZHONGTANG ; FAN QUAN YOU

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CN104963284 A	20151007	LSPB	+	published / reissued	
CN104963284 A	20151007	LSPB	+C06	PUBLICATION	
CN104963284 A	20151007	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN104963284 B	20160601	LSGT	+	granted / extensions (spc, cpc, pte)	
CN104963284 B	20160601	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN104963284 B	20160601	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)

CN104963284 B	20190125	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 : 福建忠民集团有限公司 (FUJIAN ZHONG PEOPLE GROUP CO LTD) PATENTEE BEFORE CHANGE : 温州市牟迪贸易有限公司 (MU DI TRADE CO LTD WENZHOU CITY) EFFECTIVE DATE : 20190107
CN104963284 B	20190125	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN104963284 B	20350710	PEXP		Calculated Patent Term Expiry	
DE102016112623 A1	20170112	LSPB	+	published / reissued	
DE102016112623 A1	20170614	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102016112623 A1	20180507	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102016112623 A1	20180604	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102016112623 B4	20180913	LSGT	+	granted / extensions (spc, cpc, pte)	
DE102016112623 B4	20190614	LSGT	+R020	PATENT GRANT NOW FINAL	
DE102016112623 B4	20360710	PEXP		Calculated Patent Term Expiry	
JP2017020326 A2	20170126	LSPB	+	published / reissued	
JP2017020326 A2	20170223	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20170223

Title: Fall protection surface

Abstract: The fall protection surface is constructed from a number of fall protection plates laid to adjoin one another in a flush and abutting manner. Its edge fall protection plates (edge plates) have a ramp which, on its outside, runs over the entire plate thickness. The fall protection plates have a number of continuous ducts which run parallel to the plate plane and parallel to one another and which merge with one another in the case of adjoining plates. Pegs, which are situated partially in one duct of one fall protection plate and partially in one duct of at least one other fall protection plate and thus make possible connection of the fall protection plates to one another, are inserted into these ducts. Embedded into the edge plates close to their ramps is a holding strip which is passed through by continuous fastening holes running transversely to the plate plane.

Classifications:

International (IPC 8-9): E01C13/04 E01C5/00

E01C5/18 (Advanced/Invention);

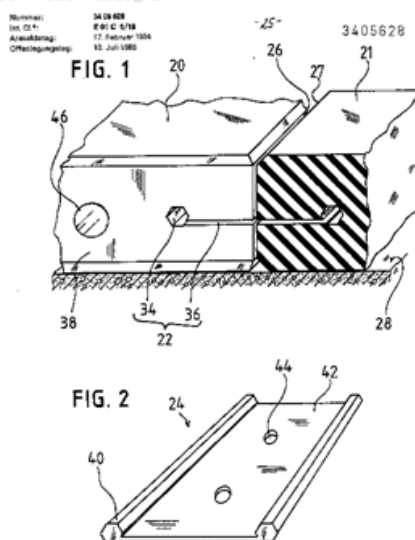
E01C13/00 E01C5/00 (Core/Invention)

International (IPC 1-7): E01C13/00 E01C5/18

CPC: E01C5/005 E01C5/18 E01C13/045 E04F2201/0511 E04F2201/0517 E04F2201/0529

European: E01C13/04B E01C5/00D E01C5/18 P04F201/05B P04F201/05C P04F201/05D1

PatBase - DE3405628_A1



Family:

Publication number	Publication date	Application number	Application date
DE3405628 A1	19860710	DE19843405628	19840217
DE3405628 C2	19901129	DE19843405628	19840217

Priority:

DE19833305796 19830219 DE19843405628 19840217

Probable Assignee: SCHAEFER HARTMUT

Assignee(s): (std): SCHAEFER HARTMUT

Assignee(s): STADTSPARKASSE KOELN 5000 KOELN DE

Inventor(s): (std): SCHAEFER HARTMUT

Inventor(s): SCHAEFER HARTMUT 5000 KOELN DE

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE3405628 A1	19860710	LSPB	+	published / reissued	
DE3405628 A1	19871210	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE3405628 A1	19890223	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	PARTYTYPE : OWNER OWNER : STADTSPARKASSE KOELN, 5000 KOELN, DE
DE3405628 C2	19901129	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3405628 C2	19901129	LSGT	+D2	GRANT AFTER EXAMINATION	
DE3405628 C2	19910508	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE3405628 C2	19920213	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	

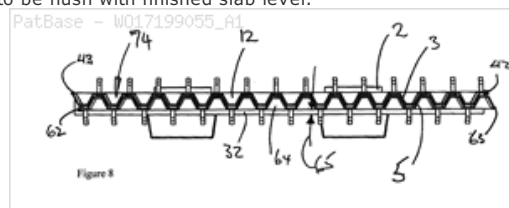
Title: FREE MOVEMENT, ARRIS PROTECTION, CONSTRUCTION **JOINT**

Abstract: A free movement, arris protection, construction **joint** for dividing concrete during pouring of concrete slabs (71,72) on opposite sides of the **joint**, the **joint** comprising: a divider plate (1) having a top, longitudinal stiffening formation (12), the plate being for dividing the slabs through a majority of a depth of the slabs; dowels (2) crossing the divider plate for transferring load from one slab on one side of the **joint** to the other on the other in use; two complementarily formed, elongate **wave** shaped arris protection members (3,5) arranged on the top stiffening formation of the divider plate. Both arris members have: complementary **wave** shaped formations, and; formations (36,37;56,57) for anchoring the arris members in the slab on their respective side of the **joint**. One of the arris members has: a flange complementary to the divider's stiffening formation and extending transverse to its **wave** shaped formations, and the other of the arris members being of a height to rest on the flange of the one arris member with free edges of the arris members flush or at least grindable to be flush with finished slab level.

Classifications:

International (IPC 8-9): E01C11/12 E01C11/14 E01D19/06 E04B1/48 E04B1/68 (Advanced/Invention)

CPC: E01D19/067 E04B1/6807 E04B1/681 E01C11/12 E01C11/14 E04B1/483



Family:

Publication number	Publication date	Application number	Application date
GB201608890 A0	20160706	GB20160008890	20160520
WO17199055 A1	20171123	WO2017GB51425	20170522

Priority:

GB20160008890 20160520

Probable Assignee: PERMABAN LTD

Assignee(s): (std): PERMABAN LTD ; RCR FLOORING PRODUCTS LTD

Inventor(s): (std): KEEN ANDREW ; DONOVAN CLIVE JAMES

Agent(s): NIGEL BROOKS CPA

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 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
GB201608890 A0	20171129	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
WO17199055 A1	20171123	LSPB	+	published / reissued	
WO17199055 A1	20181121	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO17199055 A1	20190612	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 17734389 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: **EXPANSION JOINT** FOR LONGITUDINAL LOAD TRANSFER

Abstract: An **expansion joint** design for supporting transfer loads. The system includes an elongated core and at least one longitudinal load-transfer member which are bonded together.

Classifications:

International (ipc 8-9): B29C65/00 C09K21/00 E01C11/02 E01C11/04

E01C11/10 E01C23/02 E01C5/00 E01D19/06 E04B1/16 E04B1/62

E04B1/68 E04B1/684 E04B1/686 E04B1/94 E04B9/06 E04F15/02

E21D11/08 E21D11/38 G06F12/14 G06F21/60 G06F9/455

H04L9/08 (Advanced/Invention);

E01C23/02 E04B1/62 G06F9/455 (Advanced/Non-invention)

CPC: E04F15/02016 E01C23/026 E04B1/6807 E04B1/6815 E01C23/028

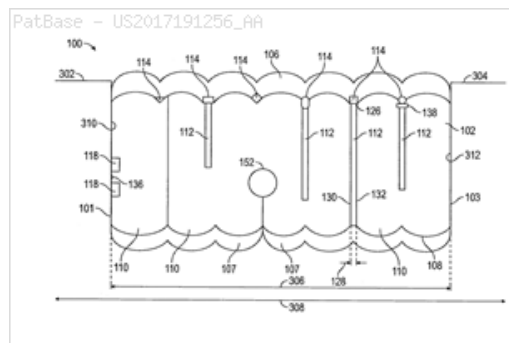
E01C5/003 E04B2001/6818 E01C11/12 B29C66/00 E04B1/6801

G06F9/45558 C09K21/02 G06F21/602 G06F2009/45587 E01C11/106

E04B1/62 E04B1/6812 E04B1/948 E01D19/06 G06F12/1408 G06F12/1425

G06F2212/1052 G06F2221/0753 G06F2221/0755 H04L9/08

US: 1/1 52/395 713/167



Family:

Publication number	Publication date	Application number	Application date
EP3397820 A1	20181107	EP20160882310	20161214
EP3397820 A4	20190619	EP20160882310	20161214
US2017191256 AA	20170706	US20160046924	20160218
US2017314258 AA	20171102	US20170648908	20170713
US2018038095 AA	20180208	US20170784529	20171016
US2018106032 AA	20180419	US20170842172	20171214
US2018171625 AA	20180621	US20180885028	20180131
US2018300490 AA	20181018	US20180012457	20180619
US2019057215 AA	20190221	US20180152903	20181005
US2019108351 AA	20190411	US20180213273	20181207
US2019266335 AA	20190829	US20190399333	20190430
US9739049 BA	20170822	US20170611160	20170601
US9745738 BB	20170829	US20160046924	20160218
US9856641 BB	20180102	US20170648908	20170713
US9951515 BB	20180424	US20170784529	20171016
US9982428 BB	20180529	US20170842172	20171214
US10066386 BB	20180904	US20180885028	20180131
US10213962 BB	20190226	US20180012457	20180619
US10233633 BB	20190319	US20180152903	20181005
US10480136 BB	20191119	US20180213273	20181207
WO17116701 A1	20170706	WO2016US66495	20161214

Priority:

US20150272837P 20151230	US20160046924 20160218	WO2016US66495 20161214
US20170611160 20170601	US20170648908 20170713	US20170784529 20171016
US20170842172 20171214	US20180885028 20180131	US20180012457 20180619
US20180152903 20181005	US20180213273 20181207	US20190399333 20190430

Probable Assignee: SCHUL INT CO LLC

Assignee(s): (std): SCHUL INT CO LLC

Assignee(s): SCHUL INT CO ; SCHUL INT CO LLC

Inventor(s): (std): ROBINSON STEVEN R

Agent(s): HGF LTD; CRAIN CATON AND JAMES PC; JAMES E; HUDSON III JAMES E; HUDSON JAMES E

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
EP3397820 A1	20181107	LSPB	+	published / reissued	
EP3397820 A1	20181107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180730
EP3397820 A4	20190619	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN	EFFECTIVE DATE : 20190516

EP3397820 A4	20200429	LSGT	+INTG	UP AND DESPATCHED INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20200403
US10066386 BB	20180904	LSGT	+	granted / extensions (spc, cpc, pte)	
US10066386 BB	20180201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:044795/0445 EFFECTIVE DATE : 20160217
US10066386 BB	20180821	LSGT	PAT1	Patented Case	
US10066386 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10066386 BB	20380131	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US10213962 BB	20190226	LSGT	+	granted / extensions (spc, cpc, pte)	
US10213962 BB	20180619	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10213962 BB	20180625	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:046192/0271 EFFECTIVE DATE : 20180619
US10213962 BB	20180709	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10213962 BB	20190206	LSGT	PAT1	Patented Case	
US10213962 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10213962 BB	20380619	PEXP		Calculated Patent Term Expiry	
US10233633 BB	20190319	LSGT	+	granted / extensions (spc, cpc, pte)	
US10233633 BB	20181005	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10233633 BB	20181008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:047089/0597 EFFECTIVE DATE : 20180619
US10233633 BB	20181025	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10233633 BB	20190227	LSGT	PAT1	Patented Case	
US10233633 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT

OWNER: LARGE ENTITY					
US10233633 BB	20381005	PEXP		Calculated Patent Term Expiry	
US10480136 BB	20191119	LSGT	+	granted / extensions (spc, cpc, pte)	
US10480136 BB	20181207	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10480136 BB	20181213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:047763/0377 EFFECTIVE DATE : 20180619
US10480136 BB	20181231	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10480136 BB	20381207	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US2017191256 AA	20170706	LSPB	+	published / reissued	
US2017191256 AA	20170605	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017191256 AA	20170809	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017314258 AA	20171102	LSPB	+	published / reissued	
US2017314258 AA	20171101	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2017314258 AA	20171213	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018038095 AA	20180208	LSPB	+	published / reissued	
US2018038095 AA	20180319	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2018038095 AA	20180322	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018038095 AA	20180404	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018106032 AA	20180419	LSPB	+	published / reissued	
US2018106032 AA	20180420	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2018106032 AA	20180426	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018106032 AA	20180509	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018171625 AA	20180621	LSPB	+	published / reissued	
US2018171625 AA	20180629	LSFE	-AWA4	Awaiting TC	

					Resp., Issue Fee Not Paid	
US2018171625 AA	20180629	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		
US2018171625 AA	20180707	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2018171625 AA	20180803	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified		
US2018171625 AA	20180807	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2018171625 AA	20180821	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US2018300490 AA	20181018	LSPB	+	published / reissued		
US2018300490 AA	20190104	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2018300490 AA	20190206	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US2019057215 AA	20190221	LSPB	+	published / reissued		
US2019057215 AA	20190207	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2019057215 AA	20190227	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US2019108351 AA	20190411	LSPB	+	published / reissued		
US2019108351 AA	20190422	LSES	NFA1	Non Final Action Mailed		
US2019108351 AA	20190710	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		
US2019108351 AA	20190813	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL CO., LLC, NEW HAMPSHIRE OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE NAME FROM SCHUL INTERNATIONAL COMPANY, LLC TO SCHUL INTERNATIONAL CO.,LLC PREVIOUSLY RECORDED ON REEL 047763 FRAME 0377. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRA:050044/0219 EFFECTIVE DATE : 20180619	
US2019108351 AA	20190815	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY	
US2019108351 AA	20190830	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		
US2019108351 AA	20191030	LSGT	PAT1	Patented Case		
US2019108351 AA	20191030	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	

US2019266335 AA	20190829	LSPB	+	published / reissued	
US2019266335 AA	20190513	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:049153/0610 EFFECTIVE DATE : 20190430
US2019266335 AA	20190813	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL CO., LCC, NEW HAMPSHIRE OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE NAME FROM SCHUL INTERNATIONAL COMPANY, LLC TO SCHUL INTERNATIONAL CO.,LLC PREVIOUSLY RECORDED ON REEL 049153 FRAME 0610. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:050044/0069 EFFECTIVE DATE : 20190430
US9739049 BA	20170822	LSGT	+	granted / extensions (spc, cpc, pte)	
US9739049 BA	20170601	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:042565/0792 EFFECTIVE DATE : 20160217
US9739049 BA	20170802	LSGT	PAT1	Patented Case	
US9739049 BA	20170802	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9739049 BA	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9739049 BA	20370601	PEXP		Calculated Patent Term Expiry	
US9745738 BB	20170829	LSGT	+	granted / extensions (spc, cpc, pte)	
US9745738 BB	20160218	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:037766/0743 EFFECTIVE DATE : 20160217
US9745738 BB	20170809	LSGT	PAT1	Patented Case	
US9745738 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9745738 BB	20360218	PEXP		Calculated Patent Term Expiry	
US9856641 BB	20180102	LSGT	+	granted / extensions (spc, cpc, pte)	
US9856641 BB	20170929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:043739/0033 EFFECTIVE DATE : 20160217
US9856641 BB	20171213	LSGT	PAT1	Patented Case	
US9856641 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY

US9856641 BB	20370713	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9951515 BB	20180424	LSGT	+	granted / extensions (spc, cpc, pte)	
US9951515 BB	20171016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:043872/0131 EFFECTIVE DATE : 20160217
US9951515 BB	20171016	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US9951515 BB	20171027	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US9951515 BB	20180404	LSGT	PAT1	Patented Case	
US9951515 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9951515 BB	20371016	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9982428 BB	20180529	LSGT	+	granted / extensions (spc, cpc, pte)	
US9982428 BB	20171214	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US9982428 BB	20171215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:044404/0869 EFFECTIVE DATE : 20171214
US9982428 BB	20180105	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL)
US9982428 BB	20180509	LSGT	PAT1	Patented Case	
US9982428 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9982428 BB	20371214	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO17116701 A1	20170706	LSPB	+	published / reissued	
WO17116701 A1	20180703	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO17116701 A1	20180730	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2016882310 COUNTRY OF REF DOCUMENT : EP
WO17116701 A1	20180810	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2016882310 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20180730

Title: A DRAINAGE SYSTEM FOR A FINISHING BLOCK FOR COVERINGS OR OUTSIDE PAVEMENTS MADE WATERTIGHT BY MEANS OF A WATERPROOF MEMBRANE

Abstract: The present invention concerns a draining system (1) for a finishing block (2) for coverings or outside pavements, made watertight by means of a waterproof membrane (3), mainly consisting of: a rusticated sheathing (4) - a non woven cloth layer (5), and a perforated sheet (6) made out of polyethylene or bituminized felt, placed above said rusticated sheathing (4).

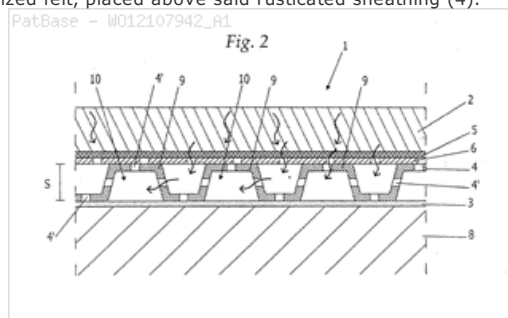
Classifications:

International (IPC 8-9): E01C11/22 E01C13/02

E04D13/04 (Advanced/Invention)

CPC: E01C5/001 E01C3/06 E01C11/225 E04D11/005 E04D13/0477

European: E01C11/22C2 E01C13/02 E04D11/00D E04D13/04B50



Family:

Publication number	Publication date	Application number	Application date
IT1404018 B1	20131108	IT2011RM00055	20110209
ITRM20110055 A1	20120810	IT2011RM00055	20110209
WO12107942 A1	20120816	WO2012IT00035	20120201

Priority:

IT2011RM00055 20110209

Probable Assignee: ANDREOLI

Assignee(s): (std): ANDREOLI ; ANDREOLI FABRIZIO ; ANDREOLI MATTIA ; ANDREOLI MAURO ; ANDREOLI PAOLO

Inventor(s): (std): ANDREOLI MAURO

Agent(s): MARI MARCO GIOVANNI

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 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
IT1404018 B1	20131108	LSGT	+	granted / extensions (spc, cpc, pte)	
IT1404018 B1	20310209	PEXP		Calculated Patent Term Expiry	
ITRM20110055 A1	20120810	LSPB	+	published / reissued	
WO12107942 A1	20120816	LSPB	+	published / reissued	
WO12107942 A1	20130809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12107942 A1	20140409	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12714055 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: VARIABLES STECKSYSTEM FORMSCHLUESSIGER BAUTEILE VARIABLES connectivity system FORMSCHLUESSIGER COMPONENTS (Machine translation)

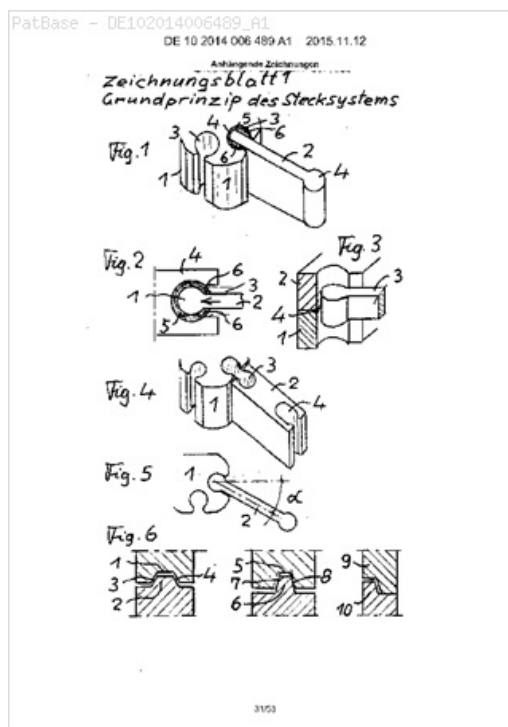
Abstract: Source: DE102014006489A1 [DE] Aufbauend auf bekannten Einzellösungen mit formschlüssigen Verbindungen wie Nut und Feder, Schwalbenschwanz, Verzahnung, Zentrierungen usw. werden die neu zu schaffenden Bauteile nach systemischen Gesichtspunkten erstellt und neuen Produkten, Produktgruppen oder Bauwerken zugeordnet. Die Erfindung betrifft ein variables Stecksystem bei dem mit wenigen aufeinander abgestimmten Bauteilen lose steckbare, stabile, sich selbst-sichernde Verbundsysteme erstellt werden können. Bauteile dieser Art lassen durch ihre vielseitige Verwendbarkeit neue Verfahren und Fertigungstechniken für ihre Herstellung zu. Durch die Art der Verwendung der neu zu schaffenden Bauteile entstehen funktionale Verteilsysteme mit seil-, ketten-, netz- und gitterhaften Strukturen. Die Bauteile des variables Stecksystem ermöglichen den Einsatz z. B. für Küstenschutz, Hochwasserschutz, Uferverbauungen, Hangsicherung, Terrassenbau, Landgewinnung, Bodenerosion, Wege-, Treppen-, Landschafts und Gartenbau, Sichtschutz, Zäune, Laerschutz Behälterbau, Blumentöpfe, Wandaufbauten, Grubensicherung, Schwimmbadbau Regale, Möbel, Schmuck, Modellbaukästen usw. **Machine translation:** Based on known individual solutions with formslueless compounds such as tongue and groove, dovetail, teeth, centering, etc., are the newly created components created by systemic factors and assigned new products, product groups or structures. The invention relates to a variable plug-in system in which components tuned to each other with only a few can be created without pluggable, stable, self-locking composite systems themselves. Components of this type allow for new processes and manufacturing techniques for their preparation through their versatility. By way of using the newly created components arise functional distribution systems with rope, chain, network and grid-stick structures. The components of the variable plug-in system allow the use of z. B. for Küstenschutz, flood protection, embankments, slope protection, terracing, land reclamation, soil erosion, road, stairs, landscaping and horticulture, blinds, fences, Laerschutz tank, Blumentöpfe, wall constructions, mine fuse, Swimming shelves, furniture, jewelry, Modellbaukästen etc.

Classifications:

International (IPC 8-9): E01C5/00 E02D17/20 E02D29/02 E04B1/18 E04B1/38 E04F15/02 E04H1/12 E04H17/00 F16B17/00

F16S1/10 (Advanced/Invention)

CPC: E01C5/00 E02D17/20 E04F15/02038 E04F2201/0511 F16B3/00 F16B5/0052 F16B5/0614



Family:

Publication number	Publication date	Application number	Application date
DE102014006489 A1	20151112	DE201410006489	20140429

Priority:

DE201410006489 20140429

Probable Assignee:

SCHIPS KARL

Assignee(s): (std):

SCHIPS KARL

Inventor(s): (std):

SCHIPS KARL

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102014006489 A1	20151112	LSPB	+	published / reissued	
DE102014006489 A1	20140429	LSLI	R086	NON-BINDING DECLARATION OF LICENSING INTEREST	
DE102014006489 A1	20171103	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	

Title: METHODS, MATERIALS AND APPARATUS FOR MOBILE ADDITIVE MANUFACTURING OF ADVANCED STRUCTURES AND ROADWAYS

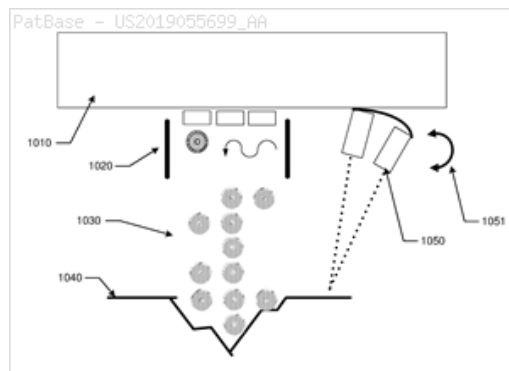
Abstract: The present disclosure provides various aspects for mobile and automated processing utilizing additive manufacturing and the methods for their utilization. In some examples, discrete material formats for use in an Additive Manufacturing Array are disclosed. Methods of using the additive manufacturing robot, discrete materials, and the roadways produced with the additive manufacturing robot are provided. A combined function Addibot, with Additive Manufacturing capabilities, cleaning capabilities, line painting capabilities and seal coating capabilities which may be used in concert with a camera equipped aerial drone for design and characterization function is described.

Classifications:

International (IPC 8-9): B33Y10/00 B33Y30/00 B33Y50/02 E01C11/00 E01C19/02 E01C19/12 E01C23/01 E01C23/06 E01C23/09 E01C23/20 E01C7/30 G06F19/00 (Advanced/Invention)

CPC: B01J2/003 B29C64/209 B29C64/227 B29C64/307 B29C64/393 B33Y10/00 B33Y30/00 B33Y50/02 B33Y70/00 B33Y80/00 B60L2200/40 B60L2240/622 B01J2/006 E01C11/005 E01C23/06 E01C23/0906 E01C23/096 E01C23/0966 E01C23/0973 E01C23/098 E01C23/0986 E01C23/16 E01C23/163 E01C23/20 E01C23/206 E01C23/222 E01C23/243 G05D1/0246 G05D1/0274 G05D2201/0202 G06Q10/20 G08G1/02 G08G1/096783 G08G1/096791 H02G1/06 H04W4/024 H04W4/40 B33Y40/00 E01C7/142 E01C7/147 E01C7/187 E01C7/26 E01C7/30 E01C19/02 E01C19/12 E01C23/01 E01C23/0993 G05D1/021 B60L50/60

US: 1/1 427/136



Family:

Publication number	Publication date	Application number	Application date
EP3417391 A1	20181226	EP20170753835	20170216
EP3417391 A4	20190731	EP20170753835	20170216
US2019055699 AA	20190221	US20170078221	20170216
WO17143063 A1	20170824	WO2017US18167	20170216

Priority:

US20160296504P 20160217 US20160299405P 20160224 US20160322169P 20160413
US20160334783P 20160511 WO2017US18167 20170216 US20170078221 20170216

Probable Assignee: FLITSCH FREDERICK A

Assignee(s): (std): FLITSCH FREDERICK ; FLITSCH FREDERICK A ; FLITSCH ROBERT ; FLITSCH ROBERT A

Inventor(s): (std): FLITSCH FREDERICK ; FLITSCH FREDERICK A ; FLITSCH ROBERT ; FLITSCH ROBERT A

Agent(s): LLOYD ROBIN; KINCART JOSEPH

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
EP3417391 A1	20181226	LSPB	+	published / reissued	
EP3417391 A1	20181226	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180803
EP3417391 A4	20190731	LSSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20190702
US2019055699 AA	20190221	LSPB	+	published / reissued	
US2019055699 AA	20200116	LSSES	NFA1	Non Final Action Mailed	
US2019055699 AA	20200409	LSSES	NFA1	Non Final Action Mailed	
WO17143063 A1	20170824	LSPB	+	published / reissued	
WO17143063 A1	20180818	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO17143063 A1	20180917	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017753835 COUNTRY OF REF DOCUMENT : EP
WO17143063 A1	20180921	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT

NUMBER :
2017753835
COUNTRY OF REF
DOCUMENT : EP
EFFECTIVE DATE :
20180917

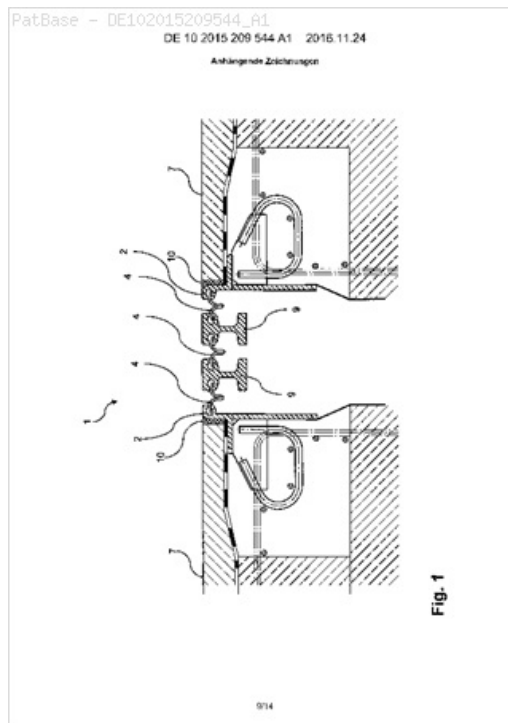
Title: FAHRBAHNUEBERGANG FUER EINE BAUWERKSFUGE UND VEFAHREN ZUM EINBAU/WECHSEL SOLCHER FAHRBAHNUEBERGAENGE

Abstract: Source: DE102015209544A1 [DE] Die vorliegende Erfindung zeigt einen Fahrbahnuebergang 1 zur ueberbrueckung einer Bauwerksfuge im Bereich einer einem Fahrbahnbelag 7 aufweisender Fahrbahn. Der Fahrbahnuebergang 1 weist dabei zumindest zwei Randprofile 2 zur Halterung wenigstens eines in der Bauwerksfuge liegenden Dehnelements 4 auf. Die Erfindung zeichnet sich dabei dadurch aus, dass benachbart zu wenigstens einem der Randprofile 2 eine Fahrbahnanschlussvorrichtung 5 angeordnet ist, die eine mehrere Stege 6 aufweisende Struktur hat. Die Stege 6 der Fahrbahnanschlussvorrichtung 5 sind dabei aus einem Material mit einer hoeheren Steifigkeit als der Fahrbahnbelag 7 gebildet. Ausserdem sind zwischen den Stegen 6 Aufnahmebereiche 8 zur Aufnahme von Fahrbahnbelag 7 angeordnet. Die Stege 6 schliessen dabei auf einer dem Randprofil 2 zugewandten Seite annaehernd buendig mit der Oberseite 3 dieses Randprofils 2 ab. Durch die vorliegende Erfindung wird sowohl der Einbau, als auch der Ausbau von Fahrbahnuebergaengen 1 erheblich erleichtert. Durch die Stege 6 aufweisende Struktur ist ausserdem ein geraeusch- und stossarmes ueberfahren mit Fahrzeugen moeglich. Die vorliegende Erfindung zeigt ausserdem ein Verfahren zum Einbau eines erfindungsgemaessen Fahrbahnuebergangs 1, sowie ein Verfahren zum Wechsel eines entsprechenden Fahrbahnuebergangs 1 auf.

Classifications:

International (IPC 8-9): E01C11/02 E01D19/06
E04B1/68 (Advanced/Invention)

CPC: E01D19/06 E01D19/062



Family:

Publication number	Publication date	Application number	Application date
DE102015209544 A1	20161124	DE201510209544	20150522
RU2016115312 A	20171025	RU20160115312	20160420
RU2016115312 A3	20180912	RU20160115312	20160420
RU2681785 C2	20190312	RU20160115312	20160420

Priority:

DE201510209544 20150522 RU20160115312 20160420

Probable Assignee: MAURER SOEHNE ENG GMBH AND CO KG

Assignee(s): (std): MAURER SOEHNE ENG GMBH AND CO KG ; MAURER ZENE INZHINIRING GMBKH AND KO KG

Assignee(s): MAURER SOEHNE ENGINEERING GMBH AND CO KG

Inventor(s): (std): EVDOKIMOV DMITRIJ ; EVDOKIMOV DMITRY

Agent(s): PESIKOVU EP

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102015209544 A1	20161124	LSPB	+	published / reissued	
DE102015209544 A1	20150522	LSSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102015209544 A1	20160929	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
RU2016115312 A	20171025	LSPB	+	published / reissued	
RU2681785 C2	20190312	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: GROUND COVERING LAYER

Abstract: The invention relates to a ground covering layer (10) comprising a plurality of ground panels (12, 14) comprising a bearing surface (16) for laying a cover layer, for example an artificial lawn layer, carpet layer or a parquet layer, said panels being serially interconnected in a detachable manner, one adjacent to the next, between lateral flanks (18) that extend between the bearing surface (16) and a ground surface facing away from the bearing surface (16). According to the invention, the ground panels (12, 14) comprise elastically deformable spacers (28) that protrude from their lateral flanks (18).

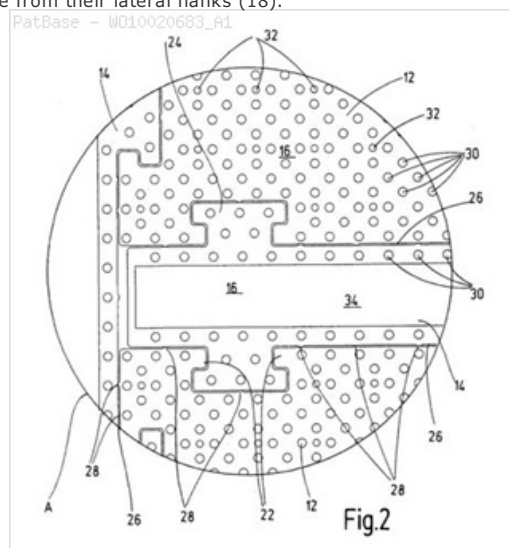
Classifications:

International (IPC 8-9): D06N7/00 E01C13/08 E01C5/00 E01C5/20 E04F15/16 (Advanced/Invention);

D06N7/00 E01C13/08 E01C5/00 E04F15/16 (Core/Invention)

CPC: E04F15/186 E01C13/08 E01C2201/14 E04F15/18 E04F2201/095

European: E01C13/08 E04F15/18 P01C201/14 P04F201/09C

**Family:**

Publication number	Publication date	Application number	Application date
DE102008039053 A1	20100225	DE200810039053	20080821
WO10020683 A1	20100225	WO2009EP60813	20090821

Priority:

DE200810039053 20080821

Probable Assignee: BEERLI ALBERT

Assignee(s): (std): BEERLI ALBERT ; BEERLI PASCAL

Inventor(s): (std): BEERLI ALBERT ; BEERLI PASCAL

Agent(s): REULE HANSPETER 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 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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102008039053 A1	20100225	LSPB	+	published / reissued	
DE102008039053 A1	20120606	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20120301
WO10020683 A1	20100225	LSPB	+	published / reissued	
WO10020683 A1	20110222	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO10020683 A1	20111102	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09782065 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :



Title: TOOL FOR EDGING UNSET CONCRETE

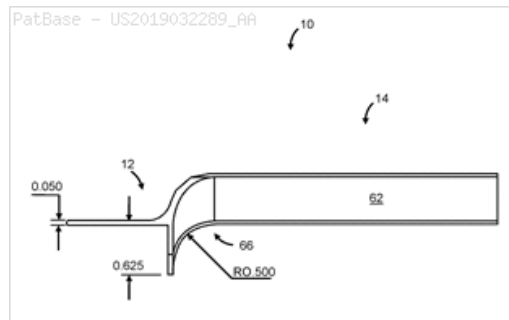
Abstract: Provided is a concrete edger hand-tool, including: a referencing structure comprising: a first member having a first surface oriented to face downward and bias a top-surface of a concrete form; and a second member having a second surface oriented to face substantially orthogonal to the first surface and bias a substantially vertical-side of the concrete form, wherein the referencing structure is configured to translate along a corner of the concrete form responsive to a force applied by a user edging unset concrete; and a concrete-surfacing structure coupled to the referencing structure, the concrete-surfacing structure comprising: a third member extending substantially orthogonal to the second member in a different direction from the first member, wherein the third member has a third surface configured to slide over and displace unset concrete to a depth defined by the top-surface of the concrete form.

Classifications:

International (IPC 8-9): E01C 19/44 E04F 21/24 (Advanced/Invention)

CPC: E01C 19/44 E04F 21/241

US: 1/1 264/31



Family:

Publication number	Publication date	Application number	Application date
US2019032289 AA	20190131	US20170659110	20170725

Priority:

US20170659110 20170725

Probable Assignee:

STITES RON

Assignee(s): (std):

STITES RON

Inventor(s): (std):

STITES RON

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US2019032289 AA	20190131	LSPB	+	published / reissued	
US2019032289 AA	20190529	LSSES	NFA1	Non Final Action Mailed	
US2019032289 AA	20191231	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

Title: **EXPANSION JOINT** SEAL FOR SURFACE CONTACT APPLICATIONS

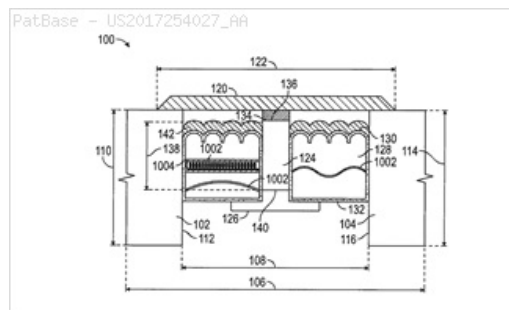
Abstract: A system for creating a durable seal between adjacent horizontal panels, including those that may be curved or subject to temperate **expansion** and contraction or mechanical shear. The durable seal incorporates a plurality of ribs, a flexible member between the cover plate and the ribs, and may incorporate a load transfer plate to provide support to the rib from below, and/or foams of differing compressibilities.

Classifications:

International (IPC 8-9): E01C E01C11/04 E01C11/10 E01C11/12 E01D19/06 E04B E04B1/68 E04B1/686 E04B1/94 (Advanced/Invention)

CPC: E01C11/04 E04H9/02 E04B1/681 E01D19/06 E04B1/947 E01C11/106 E01C11/126 E04B1/6801 E04B1/6804 E04B1/6812

US: 1/1 277/634 52/232



Family:

Publication number	Publication date	Application number	Application date
DK3426854 T3	20200420	DK20170763715T	20170209
EP3426854 A1	20190116	EP20170763715	20170209
EP3426854 A4	20190227	EP20170763715	20170209
EP3426854 B1	20200401	EP20170763715	20170209
HK1262737 A1	20200117	HK20190122806	20190423
PT3426854 T	20200422	PT20170763715T	20170209
TR202005638 T4	20200421	TR20200005638T	20170209
US2017254027 AA	20170907	US20160062354	20160307
US2017314213 AA	20171102	US20170649927	20170714
US2017342665 AA	20171130	US20170677811	20170815
US2018002868 AA	20180104	US20170702211	20170912
US2018106001 AA	20180419	US20170846387	20171219
US2018119366 AA	20180503	US20170854187	20171226
US2018142465 AA	20180524	US20170856304	20171228
US2018171564 AA	20180621	US20180890823	20180207
US2019071824 AA	20190307	US20180176486	20181031
US2019242070 AA	20190808	US20190386494	20190417
US9765486 BA	20170919	US20160062354	20160307
US9840814 BB	20171212	US20170649927	20170714
US9915038 BB	20180313	US20170677811	20170815
US10240302 BB	20190326	US20170702211	20170912
US10323360 BB	20190618	US20170846387	20171219
US10352003 BB	20190716	US20180890823	20180207
US10352039 BB	20190716	US20170856304	20171228
US10358777 BB	20190723	US20170854187	20171226
US10544548 BB	20200128	US20180176486	20181031
WO17155657 A1	20170914	WO2017US17132	20170209

Priority:

US20160062354 20160307	EP20170763715 20170209	WO2017US17132 20170209
US20170649927 20170714	US20170677811 20170815	US20170702211 20170912
US20170846387 20171219	US20170854187 20171226	US20170856304 20171228
US20180890823 20180207	US20180176486 20181031	US20190386494 20190417

Probable Assignee: SCHUL INT CO LLC

Assignee(s): (std): SCHUL INT CO LLC

Assignee(s): SCHUL INT CO

Inventor(s): (std): ROBINSON STEVEN R

Inventor(s): STEVEN R ROBINSON

Agent(s): HGF LTD; CHINAHONGKONG IP LTD; FILIZ ARK; JAMES E; CRAIN CATON AND JAMES PC; HUDSON III JAMES E; HUDSON JAMES E

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**

DK3426854 T3	20200420	LSGT	+	granted / extensions (spc, cpc, pte)	
DK3426854 T3	20370209	PEXP		Calculated Patent Term Expiry	
EP3426854 A1	20190116	LSPB	+	published / reissued	
EP3426854 A1	20190116	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180914
EP3426854 A4	20190227	LSSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20190125
EP3426854 A4	20191225	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20191129
EP3426854 B1	20200401	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3426854 B1	20200401	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP3426854 B1	20200415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3426854 B1	20200415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1251495 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20200415
EP3426854 B1	20200423	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602017014103 COUNTRY OF REF DOCUMENT : DE
EP3426854 B1	20370209	PEXP		Calculated Patent Term Expiry	
HK1262737 A1	20200117	LSPB	+	published / reissued	
PT3426854 T	20200422	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3426854 T	20370209	PEXP		Calculated Patent Term Expiry	
TR202005638 T4	20200421	LSGT	+	granted / extensions (spc, cpc, pte)	
TR202005638 T4	20370209	PEXP		Calculated Patent Term Expiry	
US10240302 BB	20190326	LSGT	+	granted / extensions (spc, cpc, pte)	
US10240302 BB	20170912	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10240302 BB	20170921	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10240302 BB	20190306	LSGT	PAT1	Patented Case	
US10240302 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10240302 BB	20371014	PEXP		Calculated	

				Patent Term Expiry (PTA 32 days and a terminal disclaimer has been filed)	
US10323360 BB	20190618	LSGT	+	granted / extensions (spc, cpc, pte)	
US10323360 BB	20171219	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10323360 BB	20171220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:044450/0926 EFFECTIVE DATE : 20171215
US10323360 BB	20180110	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10323360 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10323360 BB	20371224	PEXP		Calculated Patent Term Expiry (PTA 5 days and a terminal disclaimer has been filed)	
US10352003 BB	20190716	LSGT	+	granted / extensions (spc, cpc, pte)	
US10352003 BB	20180207	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10352003 BB	20180208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:044866/0282 EFFECTIVE DATE : 20160302
US10352003 BB	20180313	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10352003 BB	20190626	LSGT	PAT1	Patented Case	
US10352003 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10352003 BB	20380207	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US10352039 BB	20190716	LSGT	+	granted / extensions (spc, cpc, pte)	
US10352039 BB	20171228	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10352039 BB	20180103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:044524/0143

						EFFECTIVE DATE : 20171228
US10352039 BB	20180123	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY	
US10352039 BB	20190626	LSGT	PAT1	Patented Case		
US10352039 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY	
US10352039 BB	20371228	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)		
US10358777 BB	20190723	LSGT	+	granted / extensions (spc, cpc, pte)		
US10358777 BB	20171226	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY	
US10358777 BB	20180103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:044524/0565 EFFECTIVE DATE : 20160302	
US10358777 BB	20180119	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY	
US10358777 BB	20190702	LSGT	PAT1	Patented Case		
US10358777 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY	
US10358777 BB	20371226	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)		
US10544548 BB	20200128	LSGT	+	granted / extensions (spc, cpc, pte)		
US10544548 BB	20181031	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:047371/0945 EFFECTIVE DATE : 20181029	
US10544548 BB	20181031	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY	
US10544548 BB	20181126	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY	
US10544548 BB	20381031	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)		
US2017254027 AA	20170907	LSPB	+	published / reissued		
US2017314213 AA	20171102	LSPB	+	published / reissued		

US2017314213 AA	20171105	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2017314213 AA	20171106	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017314213 AA	20171108	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2017314213 AA	20171114	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017314213 AA	20171121	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017342665 AA	20171130	LSPB	+	published / reissued	
US2017342665 AA	20180221	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018002868 AA	20180104	LSPB	+	published / reissued	
US2018002868 AA	20180208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:044866/0120 EFFECTIVE DATE : 20160302
US2018002868 AA	20190201	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2018002868 AA	20190211	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018002868 AA	20190306	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018106001 AA	20180419	LSPB	+	published / reissued	
US2018106001 AA	20190306	LSES	NFA1	Non Final Action Mailed	
US2018106001 AA	20190405	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018106001 AA	20190529	LSGT	PAT1	Patented Case	
US2018106001 AA	20190529	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018119366 AA	20180503	LSPB	+	published / reissued	
US2018119366 AA	20190319	LSES	NFA1	Non Final Action Mailed	
US2018119366 AA	20190517	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2018119366 AA	20190612	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018119366 AA	20190702	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018142465 AA	20180524	LSPB	+	published / reissued	

US2018142465 AA	20190306	LSSES	NFA1	Non Final Action Mailed	
US2018142465 AA	20190515	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2018142465 AA	20190612	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018142465 AA	20190626	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018171564 AA	20180621	LSPB	+	published / reissued	
US2018171564 AA	20190319	LSSES	NFA1	Non Final Action Mailed	
US2018171564 AA	20190522	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2018171564 AA	20190612	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018171564 AA	20190626	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019071824 AA	20190307	LSPB	+	published / reissued	
US2019071824 AA	20190514	LSSES	NFA1	Non Final Action Mailed	
US2019071824 AA	20190809	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL CO., LLC, NEW HAMPSHIRE OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE NAME FROM SCHUL INTERNATIONAL COMPANY, LLC TO SCHUL INTERNATIONAL CO.,LLC PREVIOUSLY RECORDED ON REEL 047371 FRAME 0945. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:050017/0605 EFFECTIVE DATE : 20181029
US2019071824 AA	20190812	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US2019071824 AA	20190905	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2019071824 AA	20191212	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2019071824 AA	20200108	LSGT	PAT1	Patented Case	
US2019071824 AA	20200108	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019242070 AA	20190808	LSPB	+	published / reissued	
US2019242070 AA	20190418	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:048923/0858 EFFECTIVE DATE : 20190417
US2019242070 AA	20190819	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL CO., LLC, NEW HAMPSHIRE OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE NAME FROM SCHUL INTERNATIONAL COMPANY, LLC

					TO SCHUL INTERNATIONAL CO.,LLC PREVIOUSLY RECORDED ON REEL 048923 FRAME 0858, ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:050087/0322 EFFECTIVE DATE : 20190417
US9765486 BA	20170919	LSGT	+	granted / extensions (spc, cpc, pte)	
US9765486 BA	20160318	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R; REEL/FRAME:038036/0176 EFFECTIVE DATE : 20160302
US9765486 BA	20170830	LSGT	PAT1	Patented Case	
US9765486 BA	20170830	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9765486 BA	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9765486 BA	20360404	PEXP		Calculated Patent Term Expiry (PTA 28 days)	
US9840814 BB	20171212	LSGT	+	granted / extensions (spc, cpc, pte)	
US9840814 BB	20171005	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:043792/0279 EFFECTIVE DATE : 20160302
US9840814 BB	20171121	LSGT	PAT1	Patented Case	
US9840814 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9840814 BB	20370714	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9915038 BB	20180313	LSGT	+	granted / extensions (spc, cpc, pte)	
US9915038 BB	20171017	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SCHUL INTERNATIONAL COMPANY, LLC, NEW HAMPSHIRE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ROBINSON, STEVEN R.; REEL/FRAME:043879/0817 EFFECTIVE DATE : 20160302
US9915038 BB	20180221	LSGT	PAT1	Patented Case	
US9915038 BB	20200102	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9915038 BB	20370815	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO17155657 A1	20170914	LSPB	+	published / reissued	
WO17155657 A1	20180908	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE

WO17155657 A1	20181008	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017763715 COUNTRY OF REF DOCUMENT : EP
WO17155657 A1	20181012	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2017763715 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20181008

Title: METHOD AND APPARATUS FOR HEAT EXCHANGE, WHERE CHANNELS, E.G. TUBES, ARE SECURED IN RECESSES IN HEAT-INSULATING BOARDS

Abstract: PCT No. PCT/SE90/00461 Sec. 371 Date Dec. 24, 1991 Sec. 102(e) Date Dec. 24, 1991 PCT Filed Jun. 27, 1990 PCT Pub. No. WO91/00488 PCT Pub. Date Jan. 10, 1991. A method of heat exchange comprises advancing energy-carrying medium in a channel system comprising channel-part lengths (1) which extend in side-by-side mutually parallel relationship, such as hose parts (1), and substantially sheet-like or slab-like base parts (2) which support the channel parts. The method is mainly characterized by supporting and holding channel parts (1) with the aid of at least one pre-fabricated sheet or slab (2) of heat-insulating material, such as so-called cellular plastic material, and by inserting the channel parts (1) into locking grooves (3, 4) included in the slab or sheet, the width of locking grooves, when appropriate, being preferably slightly smaller than the width of a channel part, in appropriate cases the diameter of the channel part. The invention also relates to an arrangement for carrying out the method.

Classifications:

International (IPC 8-9): E01C13/12 F24D3/14 F24J2/04 F25C3/02 F28F9/00 (Advanced/Invention);

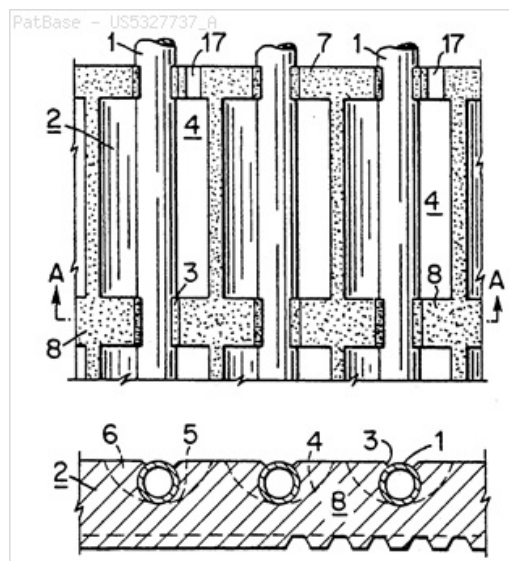
E01C13/00 F24D3/12 F24J2/04 F25C3/00 (Core/Invention)

International (IPC 1-7): A63C19/10 F25C1/00 F25C3/02 F28F9/00

CPC: F24S20/64 E01C13/12 F24D3/14 F24D3/142 F25C3/02 Y02B10/20 Y02E10/44 Y02B30/24

European: E01C13/12 F24D3/14 F24D3/14B2 F24J2/04B8 F25C3/02 Y02B10/20 Y02E10/44

US: 165/46 165/47 165/49 165/56 237/69 62/235 62/66



Family:

Publication number	Publication date	Application number	Application date
CA2062813 AA	19911227	CA19902062813	19900627
SE8902324 A	19901228	SE19890002324D	19890627
SE8902324 A0	19890627	SE19890002324	19890627
SE8902324 L	19901228	SE19890002324	19890627
US5327737 A	19940712	US19910809473	19911224
WO9100488 A1	19910110	WO1990SE00461	19900627

Priority:

SE19890002324 19890627 WO1990SE00461 19900627

Probable Assignee: EGGEMAR BENGT V

Assignee(s): (std): BENGT VALDEMAR EGGEMAR ; EGGEMAR BENGT V ; EGGEMAR BENGT VALDEMAR

Inventor(s): (std): EGGEMAR BENGT V ; EGGEMAR BENGT VALDEMAR

Inventor(s): BENGT VALDEMAR EGGEMAR

Agent(s): SMART AND BIGGAR

Designated states: AT BE CA CH DE DK ES FI FR GB IT LU NL NO SE US

Legal status (INPADOC)

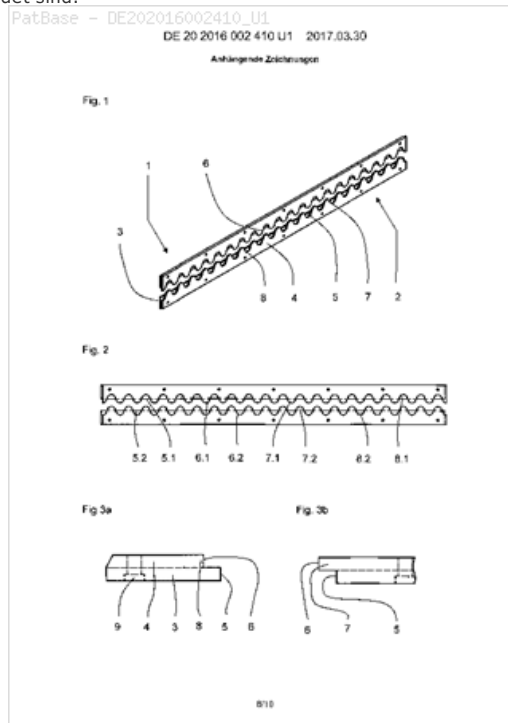
[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CA2062813 AA	19911227	LSPB	+	published / reissued	
CA2062813 AA	19970627	LSLE	-FZDE	DEAD	
SE8902324 A	19901228	LSPB	+	published / reissued	
SE8902324 A	19950228	LSLE	-NAV	PATENT APPLICATION HAS LAPSED	REF DOCUMENT NUMBER : 8902324-6 EFFECTIVE DATE : 19920101 FORMAT OF REF DOCUMENT (F/P) : F
SE8902324 L	19950228	LSLE	-NAV	PATENT APPLICATION HAS LAPSED	TEXT : 8902324-6 EFFECTIVE DATE : 19920101
US5327737 A	19940712	LSGT	+	granted / extensions (spc,	

cpc, pte)					
US5327737 A	19940630	LSGT	PAT1	Patented Case	
US5327737 A	19940913	LSRE	CC	CERTIFICATE OF CORRECTION	
US5327737 A	19980712	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5327737 A	19980922	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19980715
US5327737 A	20180127	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5327737 A	20180127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5327737 A	20111224	PEXP		Calculated Patent Term Expiry	
WO9100488 A1	19910110	LSPB	+	published / reissued	
WO9100488 A1	19911227	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2062813 COUNTRY OF REF DOCUMENT : CA

Title: FUGENPROFIL UND FUGENPROFILANORDNUNG

Abstract: Source: DE202016002410U1 [DE] Fugenprofil, aufweisend einen ersten und einen zweiten Fugenprofilpartner (1, 2), wobei die Fugenprofilpartner (1, 2) planparallel zueinander angeordnet jeweils eine Basisebene (3) und eine Deckebene (4) aufweisen, wobei die Lagebeziehung zwischen Basisebene (3) und Deckebene (4) mittels einstückiger Ausbildung in ihrer Lagebeziehung zueinander festgelegt ist, wobei die Basisebene (3) eine gerade seitliche Begrenzungskontur (5) aufweist und wobei die Deckebene (4) eine geformte seitliche Begrenzungskontur (6) aufweist, wobei die geformte seitliche Begrenzungskontur (6) der Deckebene (4) eine Abfolge von gegenüber der geraden seitlichen Begrenzungskontur (5) der Basisebene (3) vorspringenden und zurückspringenden Abschnitten (7, 8) aufweist, wobei in einer Montagelage Laengsachsen des ersten und zweiten Fugenprofilpartners (1, 2) zueinander parallel angeordnet sind, die seitlichen Begrenzungskonturen (5, 6) des ersten und zweiten Fugenprofilpartners (1, 2) miteinander korrespondieren, wobei die geraden seitlichen Begrenzungskonturen (5) im Wesentlichen parallel angeordnet sind und die geformten seitlichen Begrenzungskonturen (6) einen im Wesentlichen gleichen Verlauf aufweisen, und die vorspringenden Abschnitte (7) des ersten Fugenprofilpartners (1) die Basisebene (3) des zweiten Fugenprofilpartners (2) sowie die vorspringenden Abschnitte (7) des zweiten Fugenprofilpartners (2) die Basisebene (3) des ersten Fugenprofilpartners (1) abschnittsweise, jeweils im Bereich der zurückspringenden Abschnitte (8) der jeweiligen Deckebene (4), ueberdecken, und eine Oberflaeche der Deckebenen (4) beider Fugenprofilpartner (1, 2) eine Ebene bilden, und wobei die Fugenprofilpartner (1, 2) aus Kunststoff ausgebildet sind.

Classifications:**International (IPC 8-9):** E01C11/02 E04B1/68 (Advanced/Invention)**CPC:** E01C11/08**Family:**

Publication number	Publication date	Application number	Application date
DE202015007995 U1	20160218	DE201520007995U	20151120
DE202016002410 U1	20170330	DE201620002410U	20160418

Priority:

DE201520007995U 20151120

Probable Assignee: DFT DEUTSCHE FLÄCHEN TECHNIK INDUSTRIEBODEN GMBH**Assignee(s):** (std): DFT DEUTSCHE FLÄCHEN TECHNIK INDUSTRIEBODEN GMBH**Legal status (INPADOC)**[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE202015007995 U1	20160218	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202015007995 U1	20160218	LSGT	R207	UTILITY MODEL SPECIFICATION	
DE202015007995 U1	20181115	LSGT	+R150	UTILITY MODEL MAINTAINED AFTER PAYMENT OF FIRST MAINTENANCE FEE AFTER THREE YEARS	
DE202015007995 U1	20190205	LSWD	-R120	APPLICATION WITHDRAWN OR IP RIGHT ABANDONED	
DE202015007995 U1	20251120	PEXP		Calculated Patent Term Expiry	
DE202016002410 U1	20170330	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202016002410 U1	20170330	LSGT	R207	UTILITY MODEL SPECIFICATION	

DE202016002410 U1	20190411	LSGT	+R150	UTILITY MODEL MAINTAINED AFTER PAYMENT OF FIRST MAINTENANCE FEE AFTER THREE YEARS
DE202016002410 U1	20260418	PEXP		Calculated Patent Term Expiry

Abstract: An **expansion joint** comprising a **joint** member having opposing horizontal fixing bodies, such composed of a horizontal cushion course and a vertical cushion source made of elastic material on or under a steel flat horizontal base course, which are connected together by an **expansion** plate of elastic material that is formed in **wave** shape and comprises a flexible, flat part and an apex part, and stepped holes composed of a nut hole and an anchor bolt hole concentric with said nut hole made in said horizontal base course at regular intervals, and a method of installing such **expansion joints** by using an anchor bolt setter.

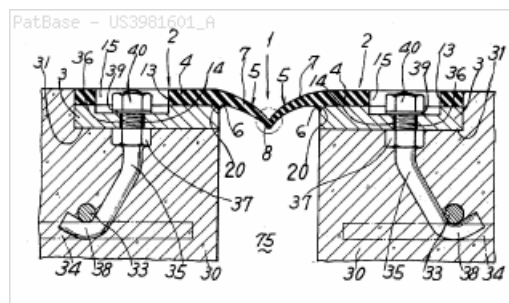
International (IPC 8-9): E01D19/06 (Advanced/Invention);
E01D19/00 (Core/Invention)

International (IPC 1-7): E01C11/02

CPC: E01D19/06

European: E01D19/06

US: 14/73.1 404/68 52/396.05 52/396.07



Publication number	Publication date	Application number	Application date
US3981601 A	19760921	US19750560481	19750320

US19730361024 19730517 US19750560481 19750320

Assignee(s): (std): ARAI MOTONOSUKE

Inventor(s): (std): ARAI MOTONOSUKE

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US3981601 A	19760921	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: **Expansion joints** for roads

Abstract: An **expansion joint** of the construction that opposing upper wavy end face plates with a regular gap therebetween and lower wavy end face plates with the upper end thereof bonded to the lower end of the upper wavy end face plates are provided oppositely, an elastic means is interposed between said both upper wavy end face plates, upper edge of said upper wavy end face plates are provided in flush with or close to the road surface, anchor materials are provided protrudingly at the back of said both upper wavy end face plates and are connected to reinforcing material, concrete or synthetic resin is placed at the back of each of said wavy end face plates and a small gap is provided between the lower end of said lower wavy end face plate and the bottom surface of a **joint** fitting portion to prevent the both from touching with each other.

Classifications:

International (IPC 8-9): E01D19/06 (Advanced/Invention);

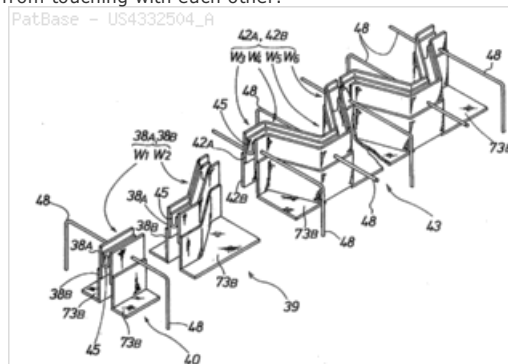
E01D19/00 (Core/Invention)

International (IPC 1-7): E01C11/04

CPC: E01D19/06

European: E01D19/06

US: 14/73.1 404/68 52/396.04



Family:

Publication number	Publication date	Application number	Application date
US4332504 A	19820601	US19790091356	19791105

Priority:

US19790091356 19791105

Probable Assignee:

ARAI MOTONOSUKE

Assignee(s): (std):

ARAI MOTONOSUKE

Inventor(s): (std):

ARAI MOTONOSUKE

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US4332504 A	19820601	LSGT	+	granted / extensions (spc, cpc, pte)	
US4332504 A	19900603	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4332504 A	19900814	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19900603

Title: Box spreader comprises wipers which are flexibly joined to the stirrer shaft and have a rotation path whose radius slightly exceeds the distance from the axis of rotation to the container bottom with outlet holes

Abstract: The box spreader for various substances comprises a stirrer unit with stirrer elements (24) provided with wipers (27) which are flexibly joined to the stirrer shaft and have a rotation path (31) whose outside radius slightly exceeds the distance between the axis of rotation (32) and the bottom (6) of the spreader container (1) in the zone of the outlet openings (7).

Classifications:

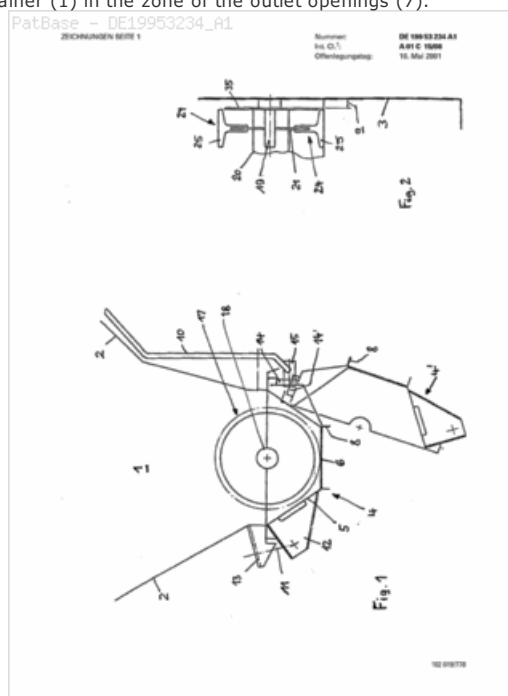
International (IPC 8-9): A01C15/08 A01C15/16 A01C7/16 E01C19/20 (Advanced/Invention);

A01C15/00 A01C7/08 E01C19/00 (Core/Invention)

International (IPC 1-7): A01C15/08

CPC: A01C7/16 A01C15/16 E01C19/2025

European: A01C15/16 A01C7/16 E01C19/20C3B



Family:

Publication number	Publication date	Application number	Application date
DE19953234 A1	20010510	DE19991053234	19991104
DE19953234 B4	20140618	DE19991053234	19991104

Priority:

DE19991053234 19991104

Probable Assignee: RAUCH LANDMASCHFAB GMBH

Assignee(s): (std): RAUCH LANDMASCHFAB GMBH

Assignee(s): RAUCH LANDMASCHINENFABRIK GMBH

Inventor(s): (std): GUSHURST HANS ; RAUCH NORBERT ; TONN WALTER

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE19953234 A1	20010510	LSPB	+	published / reissued	
DE19953234 A1	20010510	LSSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE19953234 A1	20061221	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE19953234 A1	20110316	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE19953234 A1	20130902	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE19953234 A1	20130904	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE19953234 A1	20140201	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE19953234 A1	20140220	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE19953234 A1	20140227	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE19953234 A1	20150319	LSGT	+R020	PATENT GRANT NOW FINAL	
DE19953234 A1	20150611	LSGT	+R020	PATENT GRANT NOW FINAL	EFFECTIVE DATE : 20150319

DE19953234 A1	20170601	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE
DE19953234 B4	20140618	LSGT	+	granted / extensions (spc, cpc, pte)
DE19953234 B4	20191104	PEXP		Calculated Patent Term Expiry

Title: **FLOOR** COVERING FOR ICE RINKS

Abstract: The **floor** lining for skating rinks without ice consists of basically rectangular plastic plates (1) whose contour line (2) follows a wavy or zigzag pattern which allows formation of wavy or zigzag **expansion** gaps between adjacent plates.

Classifications:

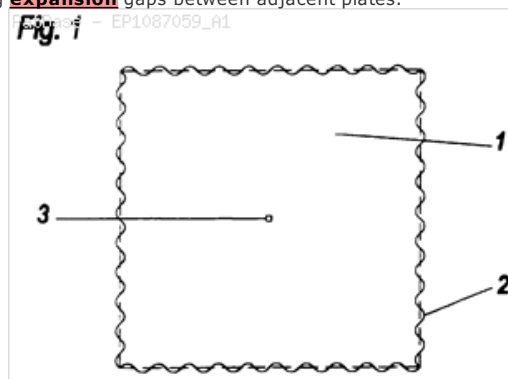
International (IPC 8-9): A63C19/10 E01C13/10 (Advanced/Invention);

A63C19/00 E01C13/00 (Core/Invention)

International (IPC 1-7): A63C19/10 E01C13/10

CPC: A63C19/10 E01C13/107

European: A63C19/10 E01C13/10C



Family:

Publication number	Publication date	Application number	Application date
AT341665 E	20061015	AT20000119224T	20000906
AT3417 U1	20000327	AT19990000657U	19990924
DE50013550 D1	20061116	DE20005013550	20000906
EP1087059 A1	20010328	EP20000119224	20000906
EP1087059 B1	20061004	EP20000119224	20000906

Priority:

AT19990000657U 19990924

Probable Assignee: K AND S ING KRASSNITZER SINGER B

Assignee(s): (std): ASM SPORT MARKETING GMBH ; K AND S ING KRASSNITZER SINGER B

Assignee(s): K AND S ING KRASSNITZER SINGER BAUGESELLSCHAFT M B ; K AND S ING KRASSNITZER SINGER BAUGESELLSCHAFT M B H ; K AND S ING KRASSNITZER SINGER BAUGESELLSCHAFT MBH

Inventor(s): (std): SINGER PETER ; SCHAUER MARTIN

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AT341665 E	20061015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT341665 E	20081215	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT341665 E	20200906	PEXP		Calculated Patent Term Expiry	
AT3417 U1	20000327	LSGT	+	granted / extensions (spc, cpc, pte)	
AT3417 U1	20050515	LSLE	-MM9K	LAPSE DUE TO NON-PAYMENT OF RENEWAL FEE	
AT3417 U1	20090924	PEXP		Calculated Patent Term Expiry	
DE50013550 D1	20071025	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE50013550 D1	20080717	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
EP1087059 A1	20010328	LSPB	+	published / reissued	
EP1087059 A1	20010328	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20001110
EP1087059 A1	20011219	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP1087059 A1	20011219	LSFE	+AXX	EXTENSION FEES PAID	TEXT : SI PAYMENT 20010919

EP1087059 B1	20061004	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1087059 B1	20061004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061004
EP1087059 B1	20061004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061004
EP1087059 B1	20061004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061004
EP1087059 B1	20061004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061004
EP1087059 B1	20061004	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP1087059 B1	20061031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1087059 B1	20061115	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: GERMAN
EP1087059 B1	20070104	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070104
EP1087059 B1	20070104	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070104
EP1087059 B1	20070115	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070115
EP1087059 B1	20070316	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070316
EP1087059 B1	20070402	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART.	REF COUNTRY CODE : EP

				29P AND 29M OF THE PATENTS ACT	
EP1087059 B1	20070502	LSWD	-GBV	GB: EP PATENT (UK) TREATED AS ALWAYS HAVING BEEN VOID IN ACCORDANCE WITH GB SECTION 77(7)/1977	REF COUNTRY CODE : EP EFFECTIVE DATE : 20061004
EP1087059 B1	20070516	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FD4D
EP1087059 B1	20070912	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20070705
EP1087059 B1	20071124	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061004
EP1087059 B1	20080331	LSLE	-BERE	BE: LAPSED	PARTY TYPE : OWNER REF COUNTRY CODE : EP OWNER : K & S ING. KRASSNITZER-SINGER BAUGESELLSCHAFT M.B EFFECTIVE DATE : 20070930
EP1087059 B1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070930
EP1087059 B1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070525
EP1087059 B1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070105
EP1087059 B1	20080515	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1087059 B1	20080731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070930
EP1087059 B1	20080731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080401
EP1087059 B1	20080731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070930
EP1087059 B1	20080829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070930
EP1087059 B1	20081128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	FEES LAPSED DATE : 20070906
EP1087059 B1	20081128	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20061004
EP1087059 B1	20090831	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 : 20070906
EP1087059 B1	20090831	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 : 20061004
EP1087059 B1	20200906	PEXP		Calculated Patent Term Expiry	

Title: PAVEMENT REPAIR SYSTEM UTILIZING SOLID PHASE AUTOREGENERATIVE COHESION

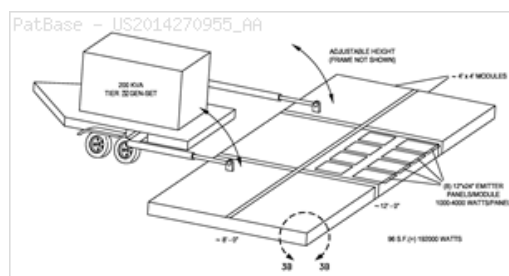
Abstract: A pavement repair system is provided utilizing Solid Phase Auto Regenerative Cohesion (SPARC) Homogenization by Liquid Asphalt Oligopolymerization (HALO) technologies. The SPARC-HALO system is suitable for use in repairing asphalt pavement, including pavement exhibiting a high degree of deterioration (as manifested in the presence of potholes, cracks, ruts, or the like) as well as pavement that has been subject to previous repair and may comprise a substantial amount of dirt and other debris (e.g., chipped road paint or other damaged or disturbed surfacing materials). The HALO system is suitable for rejuvenating aged asphalt, thereby improving properties of the paving material.

Classifications:

International (IPC 8-9): B32B18/00 B32B37/12 B32B37/16 B32B5/02 B32B7/12 C08L C08L95/00 C09D119/00 C09D123/22 C09D195/00 C09J C09J119/00 C09J195/00 C10C3/00 C10C3/10 E01C E01C11/00 E01C11/16 E01C19/00 E01C19/15 E01C19/23 E01C19/48 E01C21/00 E01C23/00 E01C23/03 E01C23/04 E01C23/06 E01C23/07 E01C23/10 E01C23/14 E01C7/06 E01C7/18 E01C7/26 E01C7/35 E01C7/36 E01D19/08 E01D22/00 E02D E02D31/06 E04B1/66 G21K5/02 H05B3/00 H05B6/48 H05B6/54 H05B6/62 H05B6/80 (Advanced/Invention); E01C (Subclass/Invention)

CPC: E01C19/23 E01C7/36 E01C23/07 E01C23/04 E01C11/16 H05B6/54 H05B6/62 E01C23/10 C09D195/005 C09D123/22 G21K5/02 E01C21/00 C10C3/002 C10C3/10 H05B6/80 C08L2555/34 E01C23/065 E01C19/002 H05B6/48 C08L21/00 B29C63/02 B29K2021/003 B29L2031/732 B32B37/12 B32B37/16 B32B2037/1253 B32B2310/0806 B32B2315/06 B32B2419/00 C08L95/005 C09J195/005 E01C7/187 E01C7/358 E01C11/005 E01C19/15 E01C23/03 E01C23/06 E01C23/14 E02D31/06 B32B5/02 B32B7/12 B32B18/00 B32B2255/26 B32B2272/00 C08L2205/03 C08L2555/84 C08L2555/86 C09D119/003 C09J119/003 E01C7/26 E01C19/48 E01C19/4853 E01C2301/10 E01D19/08 E01D22/00 E04B1/66 C08L95/00 C09D195/00

US: 1/1 156/71 404/100 404/108 404/75 404/77 404/83

**Family:**

Publication number	Publication date	Application number	Application date
AU2014236739 AA	20150924	AU20140236739	20140313
AU2014236739 BB	20161124	AU20140236739	20140313
AU2017201127 BA	20170316	AU20170201127	20170220
AU2017203100 AA	20170601	AU20170203100	20170510
AU2017203100 BB	20180531	AU20170203100	20170510
AU2018220033 AA	20180906	AU20180220033	20180822
CA2906019 AA	20150911	CA20142906019	20140313
DE602014024924 D1	20180524	DE201460024924T	20140313
DE602014065333 D1	20200528	DE201460065333T	20140313
DK2971362 T3	20180730	DK20140770592T	20140313
EP2971362 A1	20160120	EP20140770592	20140313
EP2971362 A4	20161026	EP20140770592	20140313
EP2971362 B1	20180502	EP20140770592	20140313
EP3293309 A1	20180314	EP20170188631	20140313
EP3293309 B1	20200506	EP20170188631	20140313
ES2676446 T3	20180719	ES20140770592T	20140313
HK1220747 A1	20170512	HK20160108626	20160720
HK1220747 B	20181109	HK20160108626	20160720
HK1251630 A1	20190201	HK20180111106	20160720
IN08118DN2015 A	20160722	IN2015DN08118	20150908
MX2015012024 A1	20160907	MX20150012024	20140313
MX350305 B	20170904	MX20150012024	20140313
US2014270955 AA	20140918	US20130842640	20130315
US2015167252 AA	20150618	US20150629278	20150223
US2015167253 AA	20150618	US20150629872	20150224
US2015176228 AA	20150625	US20150629375	20150223
US2015233067 AA	20150820	US20150702610	20150501
US2015267360 AA	20150924	US20150732296	20150605
US2016010291 AA	20160114	US20150846465	20150904
US2016251808 AA	20160901	US20160148998	20160506
US2017058468 AA	20170302	US20160280945	20160929
US2017081804 AA	20170323	US20160363858	20161129
US2017145640 AA	20170525	US20170428088	20170208
US2017218574 AA	20170803	US20170490434	20170418
US2019017233 AA	20190117	US20180107951	20180821
US2019301105 AA	20191003	US20190442320	20190614
US8992118 BB	20150331	US20130842640	20130315
US9057163 BA	20150616	US20140373889	20140313
US9074328 BA	20150707	US20150629872	20150224
US9127413 BB	20150908	US20150629278	20150223
US9169606 BB	20151027	US20150629375	20150223
US9347187 BB	20160524	US20150702610	20150501
US9481967 BB	20161101	US20150732296	20150605
US9551114 BB	20170124	US20160148998	20160506
US9551117 BB	20170124	US20150846465	20150904
US9624625 BB	20170418	US20160363858	20161129

US9637870 BA	20170502	US20170428088	20170208
US10081920 BB	20180925	US20160280945	20160929
US10364534 BB	20190730	US20170490434	20170418
WO14151973 A1	20140925	WO2014US26755	20140313

Priority:

US20130842640	20130315	US20130794751P	20130315	US20130798090P	20130315
US20130799515P	20130315	US20130799576P	20130315	US20130798469P	20130315
AU20140236739	20140313	EP20140770592	20140313	EP20170188631	20140313
US20140373889	20140313	WO2014US26755	20140313	US20140373889	20140722
US20150629278	20150223	US20150629375	20150223	US20150629872	20150224
US20150702610	20150501	US20150732296	20150605	US20150846465	20150904
US20160148998	20160506	HK20160108626	20160720	US20160280945	20160929
US20160363858	20161129	US20170428088	20170208	AU20170201127	20170220
US20170490434	20170418	AU20170203100	20170510	US20180107951	20180821
AU20180220033	20180822	US20190442320	20190614		

Probable Assignee: COE WILLIAM

Assignee(s): (std): COE WILLIAM ; COE WILLIAM B ; WILLIAM B COE

Assignee(s): COE WILLIAM B WRIGHTWOOD

Inventor(s): (std): COE WILLIAM B ; WILLIAM B COE

Inventor(s): COE WILLIAM B WRIGHTWOOD

Agent(s): FREEHILLS PATENT ATTORNEYS; FPA PATENT ATTORNEYS PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; STOLMAR AND PARTNER PATENTANWAELTE PARTG MBB; SECERNA LLP; ELZABURU SLP ELZABURU SLP; SPRUSON AND FERGUSON HONG KONG LTD; KNOBBE MARTENS OLSON AND BEAR LLP; ALTMAN DANIEL E

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)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2014236739 AA	20150924	LSPB	+	published / reissued	
AU2014236739 AA	20170323	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2014236739 BB	20161124	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2014236739 BB	20340313	PEXP		Calculated Patent Term Expiry	
AU2017201127 BA	20170316	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2017201127 BA	20170309	LSAS	HB	ALTERATION OF NAME IN REGISTER	PARTYTYPE : OWNER OWNER : COE, W. OLDPARTY : FORMER NAME(S): COE, WILLIAM
AU2017201127 BA	20170713	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2017201127 BA	20370220	PEXP		Calculated Patent Term Expiry	
AU2017203100 AA	20170601	LSPB	+	published / reissued	
AU2017203100 BB	20180531	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2017203100 BB	20180927	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2017203100 BB	20370510	PEXP		Calculated Patent Term Expiry	
AU2018220033 AA	20180906	LSPB	+	published / reissued	
CA2906019 AA	20150911	LSPB	+	published / reissued	
CA2906019 AA	20190314	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190308
DK2971362 T3	20180730	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2971362 T3	20340313	PEXP		Calculated Patent Term Expiry	
EP2971362 A1	20160120	LSPB	+	published / reissued	
EP2971362 A1	20160120	LSSES	+17P	REQUEST FOR	EFFECTIVE DATE : 20151012

EXAMINATION FILED					
EP2971362 A4	20161026	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20160926
EP2971362 A4	20170906	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170804
EP2971362 A4	20171206	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20171107
EP2971362 B1	20180502	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2971362 B1	20180502	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2971362 B1	20180515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2971362 B1	20180515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 995381 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180515
EP2971362 B1	20180524	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602014024924 COUNTRY OF REF DOCUMENT : DE
EP2971362 B1	20180530	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2971362 B1	20180719	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2676446 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20180719
EP2971362 B1	20180925	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2971362 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180802
EP2971362 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180802
EP2971362 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20181109	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR

					REF DOCUMENT NUMBER : 1220747 COUNTRY OF REF DOCUMENT : HK
EP2971362 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180803
EP2971362 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20181215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 995381 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180502
EP2971362 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190205	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602014024924 COUNTRY OF REF DOCUMENT : DE
EP2971362 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190410	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190205
EP2971362 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190326 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190328 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190326 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190327 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180502
EP2971362 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190327 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190326 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190401 YEAR OF FEE PAYMENT : 6
EP2971362 B1	20191028	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20190331
EP2971362 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

						LAPSED DATE : 20180502
EP2971362 B1	20191031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL	
EP2971362 B1	20191115	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : AECN TEXT : DAS PATENT WURDE AUFGRUND DES WEITERBEHANDLUNGSANTRAGS VOM 5.11.2019 REAKTIVIERT.	
EP2971362 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 : 20180502	
EP2971362 B1	20191129	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 : 20190313	
EP2971362 B1	20200122	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : NE4A	
EP2971362 B1	20200131	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 : 20190313	
EP2971362 B1	20200228	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 : 20190331	
EP2971362 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20191127 YEAR OF FEE PAYMENT : 6	
EP2971362 B1	20200331	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 : 20180502	
EP2971362 B1	20200331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20191106 YEAR OF FEE PAYMENT : 6	
EP2971362 B1	20200501	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 : 20190331	
EP2971362 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20200331 YEAR OF FEE PAYMENT : 7	
EP2971362 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20200221 YEAR OF FEE PAYMENT : 7	
EP2971362 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20200303 YEAR OF FEE PAYMENT : 7	

EP2971362 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20200310 YEAR OF FEE PAYMENT : 7
EP2971362 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20200312 YEAR OF FEE PAYMENT : 7
EP2971362 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20200304 YEAR OF FEE PAYMENT : 7
EP2971362 B1	20340313	PEXP		Calculated Patent Term Expiry	
EP3293309 A1	20180314	LSPB	+	published / reissued	
EP3293309 A1	20181010	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180904
EP3293309 A1	20181226	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20181127
EP3293309 A1	20200129	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20200110
EP3293309 B1	20200506	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3293309 B1	20200506	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP3293309 B1	20200515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3293309 B1	20200515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1266913 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20200515
EP3293309 B1	20200528	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602014065333 COUNTRY OF REF DOCUMENT : DE
EP3293309 B1	20340313	PEXP		Calculated Patent Term Expiry	
ES2676446 T3	20180719	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2676446 T3	20340313	PEXP		Calculated Patent Term Expiry	
HK1220747 A1	20170512	LSPB	+	published / reissued	
HK1220747 A1	20360720	PEXP		Calculated Patent Term Expiry	
HK1220747 B	20181109	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1220747 B	20360720	PEXP		Calculated Patent Term Expiry	
HK1251630 A1	20190201	LSPB	+	published / reissued	
IN08118DN2015 A	20160722	LSPB	+	published / reissued	
MX2015012024 A1	20160907	LSPB	+	published / reissued	
MX2015012024 A1	20170904	LSGT	+FG	GRANT OR REGISTRATION	
MX350305 B	20170904	LSGT	+	granted / extensions (spc, cpc, pte)	
MX350305 B	20340313	PEXP		Calculated Patent Term Expiry	
US10081920 BB	20180925	LSGT	+	granted / extensions (spc, cpc, pte)	
US10081920 BB	20360929	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been	

US10364534 BB	20190730	LSGT	+	filed) granted / extensions (spc, cpc, pte)	
US10364534 BB	20191126	LSRE	CC	CERTIFICATE OF CORRECTION	
US10364534 BB	20370918	PEXP		Calculated Patent Term Expiry (PTA 153 days)	
US2014270955 AA	20140918	LSPB	+	published / reissued	
US2014270955 AA	20150311	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015167252 AA	20150618	LSPB	+	published / reissued	
US2015167252 AA	20150819	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015167253 AA	20150618	LSPB	+	published / reissued	
US2015176228 AA	20150625	LSPB	+	published / reissued	
US2015176228 AA	20151007	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015233067 AA	20150820	LSPB	+	published / reissued	
US2015233067 AA	20160504	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015267360 AA	20150924	LSPB	+	published / reissued	
US2015267360 AA	20161012	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016010291 AA	20160114	LSPB	+	published / reissued	
US2016010291 AA	20170104	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016251808 AA	20160901	LSPB	+	published / reissued	
US2016251808 AA	20170104	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017058468 AA	20170302	LSPB	+	published / reissued	
US2017058468 AA	20180124	LSES	NFA1	Non Final Action Mailed	
US2017058468 AA	20180529	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017058468 AA	20180905	LSGT	PAT1	Patented Case	
US2017058468 AA	20180905	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017081804 AA	20170323	LSPB	+	published / reissued	
US2017081804 AA	20170329	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017145640 AA	20170525	LSPB	+	published / reissued	
US2017145640 AA	20171010	LSRE	CC	CERTIFICATE OF CORRECTION	
US2017218574 AA	20170803	LSPB	+	published / reissued	
US2017218574 AA	20190221	LSES	NFA1	Non Final Action Mailed	
US2017218574 AA	20190319	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017218574 AA	20190617	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017218574 AA	20190710	LSGT	PAT1	Patented Case	
US2017218574 AA	20190710	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019017233 AA	20190117	LSPB	+	published / reissued	

US2019017233 AA	20191230	LSES	NFA1	Non Final Action Mailed	
US2019301105 AA	20191003	LSPB	+	published / reissued	
US2019301105 AA	20190909	LSES	NFA1	Non Final Action Mailed	
US2019301105 AA	20200323	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US8992118 BB	20150331	LSGT	+	granted / extensions (spc, cpc, pte)	
US8992118 BB	20150311	LSGT	PAT1	Patented Case	
US8992118 BB	20151229	LSRE	CC	CERTIFICATE OF CORRECTION	
US8992118 BB	20180927	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8992118 BB	20330515	PEXP		Calculated Patent Term Expiry (PTA 61 days)	
US9057163 BA	20150616	LSGT	+	granted / extensions (spc, cpc, pte)	
US9057163 BA	20150527	LSGT	PAT1	Patented Case	
US9057163 BA	20150527	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9057163 BA	20181210	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9057163 BA	20340313	PEXP		Calculated Patent Term Expiry	
US9074328 BA	20150707	LSGT	+	granted / extensions (spc, cpc, pte)	
US9074328 BA	20150617	LSGT	PAT1	Patented Case	
US9074328 BA	20150617	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9074328 BA	20181217	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9074328 BA	20350224	PEXP		Calculated Patent Term Expiry	
US9127413 BB	20150908	LSGT	+	granted / extensions (spc, cpc, pte)	
US9127413 BB	20150819	LSGT	PAT1	Patented Case	
US9127413 BB	20190304	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9127413 BB	20350223	PEXP		Calculated Patent Term Expiry	
US9169606 BB	20151027	LSGT	+	granted / extensions (spc, cpc, pte)	
US9169606 BB	20151007	LSGT	PAT1	Patented Case	
US9169606 BB	20190424	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9169606 BB	20350223	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9347187 BB	20160524	LSGT	+	granted / extensions (spc, cpc, pte)	
US9347187 BB	20150909	LSES	NFA1	Non Final Action Mailed	
US9347187 BB	20160504	LSGT	PAT1	Patented Case	
US9347187 BB	20191118	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9347187 BB	20350501	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9481967 BB	20161101	LSGT	+	granted / extensions (spc, cpc, pte)	
US9481967 BB	20151026	LSES	NFA1	Non Final Action Mailed	

US9481967 BB	20161012	LSGT	PAT1	Patented Case	
US9481967 BB	20200417	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9481967 BB	20350605	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9551114 BB	20170124	LSGT	+	granted / extensions (spc, cpc, pte)	
US9551114 BB	20170104	LSGT	PAT1	Patented Case	
US9551114 BB	20170523	LSRE	CC	CERTIFICATE OF CORRECTION	
US9551114 BB	20200522	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9551114 BB	20360506	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9551117 BB	20170124	LSGT	+	granted / extensions (spc, cpc, pte)	
US9551117 BB	20170104	LSGT	PAT1	Patented Case	
US9551117 BB	20170620	LSRE	CC	CERTIFICATE OF CORRECTION	
US9551117 BB	20350904	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9624625 BB	20170418	LSGT	+	granted / extensions (spc, cpc, pte)	
US9624625 BB	20170329	LSGT	PAT1	Patented Case	
US9624625 BB	20200422	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9624625 BB	20361129	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9637870 BA	20170502	LSGT	+	granted / extensions (spc, cpc, pte)	
US9637870 BA	20170412	LSGT	PAT1	Patented Case	
US9637870 BA	20170412	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9637870 BA	20370208	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO14151973 A1	20140925	LSPB	+	published / reissued	
WO14151973 A1	20140722	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14373889 COUNTRY OF REF DOCUMENT : US
WO14151973 A1	20150909	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2015/012024 COUNTRY OF REF DOCUMENT : MX
WO14151973 A1	20150911	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2906019 COUNTRY OF REF DOCUMENT : CA
WO14151973 A1	20150915	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO14151973 A1	20150924	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2014236739 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20140313 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14151973 A1	20151012	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014770592 COUNTRY OF REF DOCUMENT : EP

Title: Void-maintaining geosynthetic laminates and drainage systems

Abstract: Void-maintaining geocomposite laminates, and drainage systems utilizing those laminates, are provided for location below a road surface or below a large structure such as a building, retaining wall or parking lot. The laminates include at least one fluid-transmissible layer adjacent an upper or lower surface of a polymer-based core. Optionally, another fluid-transmissible layer is provided adjacent a lower surface of the polymer-based core to form geocomposite laminates having high permittivity and high transmissivity. The one or more fluid-transmissible layers are preferably geotextiles. Characteristic of the core element is high transmissivity, that is, a high rate of horizontal flow of gases or liquids through the core. Characteristic of the at least one fluid-transmissible layer is high permittivity, that is, a high rate of vertical transmission of liquids and gases through the geotextile layer and into the core element. Also characteristic of fluid-transmissible layers of the invention is high exclusivity with respect to solid materials. Core elements and fluid-transmissible layers advantageously can be formed separately so that the components may be separately transported to a site and installed in sequence, or bonded to one another onsite by welding or adhesives. The systems include further drain means that communicate with the geocomposite structures of the system, such as perforated pipes and the like, which can connect further to culverts, ditches or waterways. The geocomposite structures and drain can form part of a greater subsurface geosynthetic system that provides reinforcement, separation, and drainage for the structure to thereby extend its useful life and decrease maintenance costs.

Classifications:

International (IPC 8-9): B09B5/00 B65G5/00 E01C3/00 E01C3/06 E01F5/00 E02B11/00 E02D31/02 E02D31/10 E02D31/14 (Advanced/Invention);

B65G5/00 E01C3/00 E01F5/00 E02B11/00 E02D31/00 (Core/Invention)

International (IPC 1-7): B09B1/00 E01C3/00 E01C3/06 E01F5/00 E02B11/00 E02D17/20 E02D31/02 E03F1/00

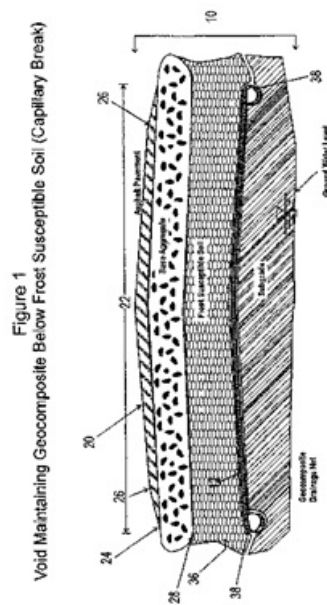
CPC: E01F5/00 E02B11/00 E02D31/02 E01C3/00 E01C3/06 E02D31/10 E02D31/14 E02D2300/0085 E02D2450/108 E01C13/02 E01C13/08

European: E01C13/02 E01C13/08 E01C3/00 E01C3/06 E01F5/00 E02B11/00 E02D31/02 E02D31/10 E02D31/14 P02D300/10T P02D450/10C

US: 210/170 210/170.08 210/747 210/747.7 40/42.8 40/43.1 404/2 404/28 404/2S 404/31 405/129.95 405/129.950P 405/302.7 405/302.700S 405/36 405/36P 405/43 405/43S 405/46 405/50 405/53 405/53P

PatBase - US2002044842_AA

Patent Application Publication Apr. 18, 2002 Sheet 1 of 8 US 2002/0044842 A1



Family:

Publication number	Publication date	Application number	Application date
CA2335414 AA	20010810	CA20012335414	20010212
CA2335417 AA	20010810	CA20012335417	20010212
US2002044842 AA	20020418	US20000501318	20000210
US2003223819 AA	20031204	US20020232811	20020903
US2004131423 AA	20040708	US20030691975	20031024
US2005158123 AA	20050721	US20040931294	20040901
US2008240860 AA	20081002	US20070924304	20071025
US6505996 BA	20030114	US20000501324	20000210
US6802669 BB	20041012	US20020232811	20020903
US7131788 BB	20061107	US20030691975	20031024
US7309188 BB	20071218	US20040931294	20040901

Priority:

US20000501324	20000210	US20000501318	20000210	CA20012335414	20010212
CA20012335417	20010212	US20010316036P	20010831	US20020232811	20020903
US20030446988P	20030213	US20030476230P	20030606	US20030691975	20031024
US20040931294	20040901	US20060862805P	20061025	US20070924304	20071025

Probable Assignee: TENAX CORP

Assignee(s): (std): ADVANCED GEOTECH SYSTEMS LLC ; SHAFFER GARY L ; TENAX CORP ; ZHAO AIGEN ; IANNIELLO PETER J ; ADVANCED GEOTECH SYSTEMS

Assignee(s): CAPRA GIOVANNI ; RECYCLED FOAM TECHNOLOGIES LLC

Inventor(s): (std): SHAFFER GARY L ; ZHAO AIGEN ; IANNIELLO PETER J ; CAPRA GIOVANNI

Inventor(s): AIGEN ZHAO ; GIOVANNI CAPRA ; PETER J IANNIELLO ; IANNIELLO PETER ; SHAFFER GARY

Agent(s): SMART AND BIGGAR; GARY L SHAFFER; ALSTON AND BIRD LLP; NATH AND ASSOCIATES PLLC; NATH LAW GROUP; MATTHEW J; JERALD L

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CA2335414 AA	20010810	LSPB	+	published / reissued	
CA2335414 AA	20040209	LSES	+EEER	EXAMINATION REQUEST	
CA2335414 AA	20070212	LSLE	-FZDE	DEAD	
CA2335417 AA	20010810	LSPB	+	published / reissued	
CA2335417 AA	20040212	LSLE	-FZDE	DEAD	
US2002044842 AA	20020418	LSPB	+	published / reissued	
US2002044842 AA	20020930	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002044842 AA	20131024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TENAX CORPORATION, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED GEOTECH SYSTEMS, LLC; REEL/FRAME:031558/0521 EFFECTIVE DATE : 20131004
US2003223819 AA	20031204	LSPB	+	published / reissued	
US2004131423 AA	20040708	LSPB	+	published / reissued	
US2004131423 AA	20060710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:IANNIELLO, PETER J.; ZHAO, AIGEN; TENAX CORPORATION; REEL/FRAME:017904/0288 EFFECTIVE DATE : 20051219
US2004131423 AA	20060816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SHAFFER, GARY L; REEL/FRAME:018117/0817 EFFECTIVE DATE : 20060222
US2005158123 AA	20050721	LSPB	+	published / reissued	
US2005158123 AA	20060816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SHAFFER, GARY L; REEL/FRAME:018118/0412 EFFECTIVE DATE : 20060222
US2005158123 AA	20060816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS LLC, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:IANNIELLO, PETER J.; ZHAO, AIGEN; TENAX CORPORATION; REEL/FRAME:018117/0970 EFFECTIVE DATE : 20051219
US2005158123 AA	20071128	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008240860 AA	20081002	LSPB	+	published / reissued	
US2008240860 AA	20080710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RECYCLED FOAM TECHNOLOGIES, LLC, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

ASSIGNOR: WILLIAMS, GREGG S.;
REEL/FRAME: 021219/0630
EFFECTIVE DATE : 20080610

US2008240860 AA	20110118	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US6505996 BA	20030114	LSGT	+	granted / extensions (spc, cpc, pte)	
US6505996 BA	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: TENAX CORPORATION; REEL/FRAME: 014718/0195 EFFECTIVE DATE : 20031112
US6505996 BA	20060713	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6505996 BA	20060816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS LLC, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: CAPRA, GIOVANNI; IANNIELLO, PETER J; ZHAO, AIGEN; AND OTHERS; REEL/FRAME: 018118/0392 EFFECTIVE DATE : 20051219
US6505996 BA	20100714	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6505996 BA	20131024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TENAX CORPORATION, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: ADVANCED GEOTECH SYSTEMS, LLC; REEL/FRAME: 031558/0521 EFFECTIVE DATE : 20131004
US6505996 BA	20150114	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6505996 BA	20150114	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US6505996 BA	20150209	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6505996 BA	20150303	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150114
US6505996 BA	20161003	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20161006
US6505996 BA	20161006	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6505996 BA	20161006	LSGT	PAT1	Patented Case	
US6505996 BA	20161006	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6505996 BA	20200210	PEXP		Calculated Patent Term Expiry	
US6802669 BB	20041012	LSGT	+	granted / extensions (spc, cpc, pte)	
US6802669 BB	20081012	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US6802669 BB	20081202	LSLE	-FP	EXPIRED DUE TO	EFFECTIVE DATE : 20081012

				FAILURE TO PAY MAINTENANCE FEE	
US6802669 BB	20090107	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6802669 BB	20090119	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20090122
US6802669 BB	20090122	LSGT	PAT1	Patented Case	
US6802669 BB	20120314	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6802669 BB	20130131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED GEOTECH SYSTEMS LLC, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CAPRA, GIOVANNI; IANNIELLO, PETER J.; ZHAO, AIGEN; AND OTHERS; REEL/FRAME:029727/0775 EFFECTIVE DATE : 20051219
US6802669 BB	20131024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TENAX CORPORATION, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED GEOTECH SYSTEMS, LLC; REEL/FRAME:031558/0521 EFFECTIVE DATE : 20131004
US6802669 BB	20161012	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6802669 BB	20161107	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6802669 BB	20161107	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6802669 BB	20161129	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20161012
US6802669 BB	20220903	PEXP		Calculated Patent Term Expiry	
US7131788 BB	20061107	LSGT	+	granted / extensions (spc, cpc, pte)	
US7131788 BB	20100409	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7131788 BB	20141107	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7131788 BB	20141208	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7131788 BB	20141208	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7131788 BB	20141230	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20141107
US7131788 BB	20231024	PEXP		Calculated Patent Term Expiry	
US7309188 BB	20071218	LSGT	+	granted / extensions (spc, cpc, pte)	
US7309188 BB	20071128	LSGT	PAT1	Patented Case	
US7309188 BB	20110822	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7309188 BB	20150529	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US7309188 BB	20190805	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7309188 BB	20200120	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
US7309188 BB	20200120	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7309188 BB	20200120	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7309188 BB	20200211	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20191218
US7309188 BB	20240901	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	

Title: DECKBELAG FUER ROLLFELDER, STRASSEN, BOEDEN, WAENDE UND DERGLEICHEN DECK COVERING FOR ROLLING FIELDS ROAD, **floors**, walls and LIKE (Machine translation)

Abstract: Source: CH346575A [DE] (Claim 1) 1. Deckbelag nach Patentanspruch, dadurch gekennzeichnet, dass in die Einsatzelemente Heizdrahte eingelegt sind, durch welche der Belag unmittelbar unter seiner Oberfläche elektrisch beheizbar ist.

Machine translation: (claim 1) 1 Deck covering according to claim, characterized in that in the insert elements heating wires are inserted, through which the pad immediately below its surface electrically heatable.

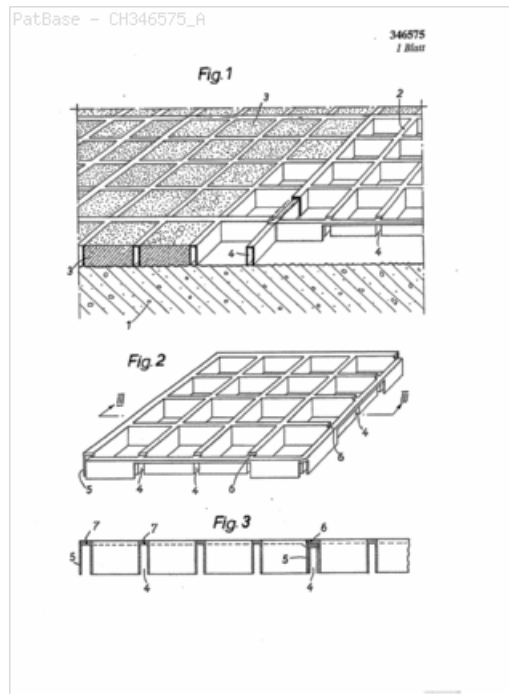
Classifications:

International (IPC 8-9): E01C11/26 F24D13/02 (Advanced/Invention);
E01C11/24 F24D13/02 (Core/Invention)

International (IPC 1-7): E01C11/26

CPC: Y02B30/26 E01C11/26 E01C11/265 F24D13/024

European: E01C11/26 E01C11/26B F24D13/02B2



Family:

Publication number	Publication date	Application number	Application date
CH346575 A	19600531		19560221

Priority:

19560221

Probable Assignee:

PALATINI BENNO

Assignee(s): (std):

PALATINI BENNO

Inventor(s): (std):

BENNO PALATINI

Inventor(s):

PALATINI BENNO

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CH346575 A	19600531	LSGT	+	granted / extensions (spc, cpc, pte)	
CH346575 A	19760221	PEXP		Calculated Patent Term Expiry	

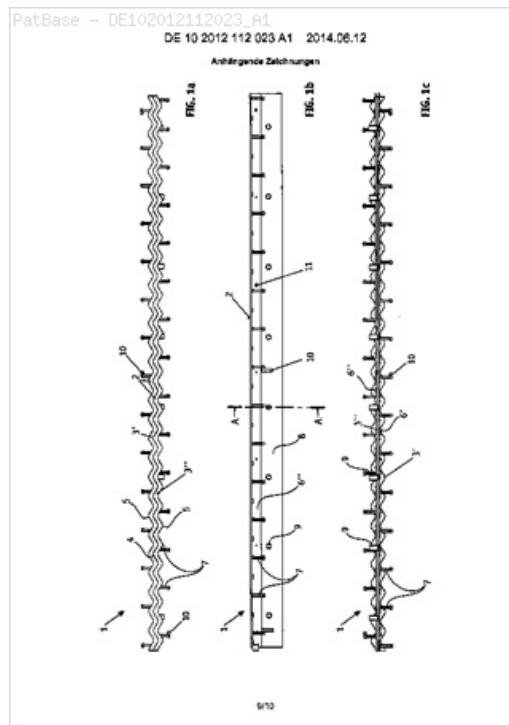
Title: FUSSBODENBAUSCHALUNGSELEMENT

Abstract: Source: DE102012112023B4 [DE] Fussbodenbauschalungselement (1) fuer den Kantenschutz, die Spaltueberbrueckung und die Verbindung benachbarter Bodenfelder, die aus einem bei der Verarbeitung fluessfaehigen Bodenmaterial gegossen sind, mit einem nach dem bestimmungsgemaessen Einbau buendig mit der Bodenoberflaeche abschliessenden Schalungsabschluss (2), wobei der Schalungsabschluss (2) von einem ersten Flachprofil (3') mit einer inneren Kante (4) und einer aeusseren Kante (5), das auf einer ersten Unterkonstruktion (6') einer ersten Schalungsseite liegend befestigt ist, und einem zweiten Flachprofil (3'') mit einer inneren Kante (4) und einer aeusseren Kante (5), das auf einer zweiten Unterkonstruktion (6'') einer zweiten Schalungsseite liegend befestigt ist, gebildet ist, wobei die inneren Kanten (4) und die aeusseren Kanten (5) der Flachprofile (3', 3'') einen nicht-linearen Verlauf aufweisen, dadurch gekennzeichnet, dass bei einbaubereitem Schalungselement (1), bei dem die erste und zweite Profilseite aneinander anliegen, das erste Flachprofil (3') auf der zweiten Unterkonstruktion (6'') der zweiten Profilseite und das zweite Flachprofil (3'') auf der ersten Unterkonstruktion (6') der ersten Profilseite aufliegt.

Classifications:

International (IPC 8-9): E01C 11/08 E04F 15/14 (Advanced/Invention)

CPC: E01C 11/08 E04F 15/142 E01C 11/14 E04B 1/483



Family:

Publication number	Publication date	Application number	Application date
DE102012112023 A1	20140612	DE201210112023	20121210
DE102012112023 B4	20170406	DE201210112023	20121210

Priority:

DE201210112023 20121210

Probable Assignee:

HSD INDUSTRIEBELAEGE GMBH

Assignee(s): (std):

HSD INDUSTRIEBELAEGE GMBH

Inventor(s): (std):

HAMMES HERBERT

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE102012112023 A1	20140612	LSPB	+	published / reissued	
DE102012112023 A1	20121210	LSSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102012112023 A1	20140213	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102012112023 A1	20140214	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102012112023 A1	20160915	LSSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102012112023 A1	20161219	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102012112023 B4	20170406	LSGT	+	granted / extensions (spc, cpc, pte)	

DE102012112023 B4	20180109	LSGT	+R020	PATENT GRANT NOW FINAL
DE102012112023 B4	20321210	PEXP		Calculated Patent Term Expiry

Title: INTERCONNECTING DISENGAGEABLE **FLOORING** SYSTEM

Abstract: The present invention relates to a disengageable interconnecting **flooring** system for use in forming a temporary or permanent **flooring** surface on top of a support structure from individual **flooring** panels. The system includes two or more **flooring** panels comprising a top wear surface and a bottom surface for contact with the support structure. The panels have at least three edges and all edges have recesses formed therein. The system further comprises a connector having a base and a projection extending vertically from the base. The projection extending from the base is shaped to be received in a disengageable vertical connected fashion into the recesses of the panels. Preferably the connector is comprised of a base having a projection extending the entire length thereof. In a preferred embodiment, the connector and panels further comprise means for connecting the panels in a disengageable horizontal fashion.

Classifications:

International (IPC 8-9): B29C47/00 B29C63/00 B29D5/00 B32B1/04 B32B3/08 B32B3/30 B44C3/12 B44C5/04 E04B1/38 E04B2/00 E04C2/24 E04C2/30 E04C2/34 E04C2/40 E04C5/16 E04F E04F15/00 E04F15/02 E04F15/022 E04F15/04 E04F15/10 E04F15/14 E04F15/16 (Advanced/Invention); B29C47/00 E04F15/00 E04F15/02 E04F15/04 E04F15/16 (Advanced/Non-invention); B29C63/00 B29D5/00 B32B3/08 B44C3/00 B44C5/00 E04B1/38 E04B2/00 E04C2/40 E04C5/16 E04F15/00 E04F15/02 E04F15/022 E04F15/04 E04F15/16 (Core/Invention); B29C47/00 (Core/Non-invention)

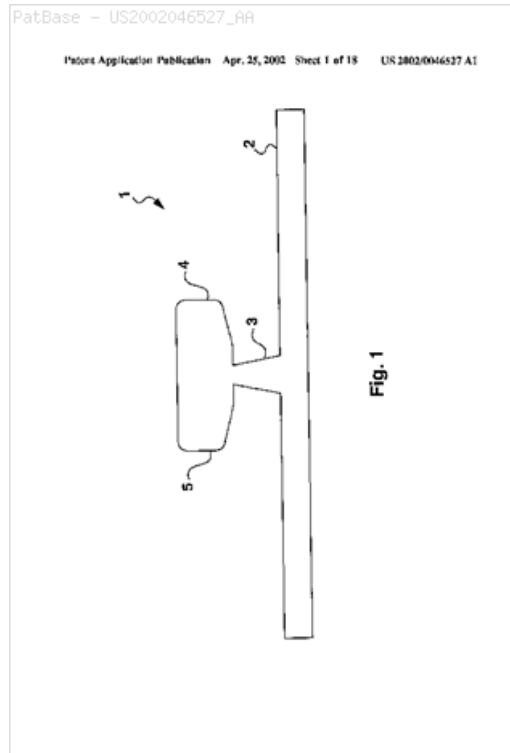
International (IPC 1-7): B29C65/00 B29D5/00 B32B B32B1/04 B32B27/00 B32B3/30 E01C11/02 E04B1/00 E04B1/38 E04B1/68 E04B2/00 E04B5/00 E04C E04C1/30 E04C2/24 E04C2/30 E04C2/34 E04C2/40 E04C3/30 E04C5/16 E04F13/16 E04F15/00 E04F15/02 E04F15/022 E04F15/04 E04F15/10 E04F15/14 E04F15/16 **CPC:** E04F2201/07 E04F2015/0205 B29C48/00 B29C48/06 B29C48/12 B29C63/003 B44C3/12 B44C5/0469 B32B3/08 E04F15/02 E04F15/04 E04F2201/0107 E04F2201/023 E04F2201/042 E04F2201/049 E04F2201/05 E04F2201/0517 Y10T29/49629 Y10T156/10 Y10T156/1064 Y10T156/1079

European: B29C63/00C2 B32B3/08 B44C3/12 B44C5/04R E04F15/02 E04F15/04 L29C47/00 P04F201/01A P04F201/02B P04F201/04B P04F201/04D5 P04F201/05 P04F201/05C P04F201/07

US: 156/257 156/266 156/304.1 156/304.3 156/304.5 156/6 156/60 156/60S 29/897.32 29/897.320S 52/461 52/506.05 52/57 52/570 52/578 52/581 52/582.1 52/582.100P 52/586.1 52/586.100S 52/586.2 52/588.1 52/745.19 52/745.190P 52/800.1 52/800.100S

JP F-Term: 2E210 2E220 2E220/AA02 2E220/AA07 2E220/AA16 2E220/AA25 2E220/AA29 2E220/AA33 2E220/AA39 2E220/AA51 2E220/AA55 2E220/AB01 2E220/AB03 2E220/AB14 2E220/AB23 2E220/AB24 2E220/AB30 2E220/AC01 2E220/AC03 2E220/AC11 2E220/BA01 2E220/BA14 2E220/BA19 2E220/BA28 2E220/BB06 2E220/BB16 2E220/DA02 2E220/DA11 2E220/DA14 2E220/DB03 2E220/EA02 2E220/EA11 2E220/FA01 2E220/FA02 2E220/FA03 2E220/FA04 2E220/FA05 2E220/FA13 2E220/GA03/X 2E220/GA04/X 2E220/GA12/X 2E220/GA22/X 2E220/GA24/X 2E220/GA25/X 2E220/GA27/X 2E220/GA30/X 2E220/GA35/Z 2E220/GB01/Z 2E220/GB02/X 2E220/GB05/X 2E220/GB05/Z 2E220/GB11/X 2E220/GB12/X 2E220/GB17/X 2E220/GB22/X 2E220/GB25/X 2E220/GB25/Z 2E220/GB28/X 2E220/GB31/X 2E220/GB32/X 2E220/GB32/Z 2E220/GB33/X 2E220/GB34/X 2E220/GB35/X 2E220/GB37/X 2E220/GB38/X 2E220/GB39/Z 2E220/GB43/X 2E220/GB43/Z 2E220/GB45/X 2E220/GB46/X 2E220/GB47/X 2E220/GB48/X 2E220/GB54/X 2E220/AA10 2E220/AA11 2E220/AA26 2E220/BC04 2E220/DA16 2E220/DB02 2E220/DB05 2E220/DB10 2E220/FA07 2E220/FA09 2E220/FA17 2E220/GA07/X 2E220/GA22/Z 2E220/GA24/Z 2E220/GB31/Z 2E220/GB40/X

JP F-Index: E04F15/00/601/F E04F15/02/B E04F15/02/E



Family:

Publication number	Publication date	Application number	Application date
AR030607 AA	20030827	AR2001P104213	20010905
AR030716 AA	20030903	AR2001P104212	20010905
AT280292 E	20041115	AT20010119869T	20010816
AT292721 E	20050415	AT20010119907T	20010817
AT294303 E	20050515	AT20000124057T	20001106
AU200163584 A1	20021114	AU20010063584	20010822
AU200163584 A5	20021114	AU20010063584D	20010822
AU200163585 A1	20021114	AU20010063585	20010822
AU200163585 A5	20021114	AU20010063585D	20010822
AU761966 B2	20030612	AU20010063585	20010822
AU763968 B2	20030807	AU20010063584	20010822
BRPI0005216 A	20010904	BR2000PI05216	20001101
BRPI0103780 A	20020604	BR2001PI03780	20010829
BRPI0103833 A	20020507	BR2001PI03833	20010831
BRPI0105076 A	20020625	BR2001PI05076	20011108
CA2320015 AA	20010508	CA20002320015	20000918
CA2320015 C	20051129	CA20002320015	20000918
CA2354841 AA	20020314	CA20012354841	20010809
CA2354857 AA	20020314	CA20012354857	20010808
CA2354857 C	20071023	CA20012354857	20010808
CA2359419 AA	20020520	CA20012359419	20011019
CA2474125 AA	20010508	CA20002474125	20000918
CA2474128 AA	20010508	CA20002474128	20000918
CA2474132 AA	20010508	CA20002474132	20000918

CN1117201 C	20030806	CN20001031940	20001101
CN1131914 C	20031224	CN20011030513	20011120
CN1205398 C	20050608	CN20011032882	20010912
CN1236182 C	20060111	CN20011032881	20010912
CN1295166 A	20010516	CN20001031940	20001101
CN1343823 A	20020410	CN20011032882	20010912
CN1343824 A	20020410	CN20011032881	20010912
CN1354312 A	20020619	CN20011030513	20011120
DE60019701 D1	20050602	DE20006019701	20001106
DE60019701 D1	20050602	DE20006019701T	20001106
DE60019701 T2	20060119	DE20006019701T	20001106
DE60106543 D1	20041125	DE20016006543T	20010816
DE60106543 D1	20041125	DE20016006543	20010816
DE60106543 T2	20060119	DE20016006543T	20010816
DE60106543 T8	20060427	DE20016006543T	20010816
DE60109868 D1	20050512	DE20016009868	20010817
DE60109868 D1	20050512	DE20016009868T	20010817
DE60109868 T2	20060216	DE20016009868T	20010817
EP1098048 A1	20010509	EP20000124057	20001106
EP1098048 B1	20050427	EP20000124057	20001106
EP1188878 A1	20020320	EP20010119869	20010816
EP1188878 B1	20041020	EP20010119869	20010816
EP1188879 A1	20020320	EP20010119907	20010817
EP1188879 B1	20050406	EP20010119907	20010817
EP1207246 A1	20020522	EP20010127212	20011116
ES2230222 T3	20050501	ES20010119869T	20010816
ES2240290 T3	20051016	ES20010119907T	20010817
ES2241539 T3	20051101	ES20000124057T	20001106
HK1042737 A1	20050429	HK20020103222	20020430
HK1042737 B	20050429	HK20020103222	20020430
IL144689 A0	20020630	IL20010144689	20010801
IL144690 A0	20020630	IL20010144690	20010801
IN00741MU2001 A	20050218	IN2001MU00741	20010801
IN00742MU2001 A	20050218	IN2001MU00742	20010801
IN203196 B	20070511	IN2001MU00742	20010801
IN203197 B	20070511	IN2001MU00741	20010801
JP2002138653 A2	20020517	JP20010280357	20010914
JP2002155615 A2	20020531	JP20010280358	20010914
JP3663162 B2	20050622	JP20010280357	20010914
JP3663163 B2	20050622	JP20010280358	20010914
KR100486438 B1	20050503	KR20010056371	20010913
KR100486439 B1	20050429	KR20010056377	20010913
KR20020021335 A	20020320	KR20010056371	20010913
KR20020021339 A	20020320	KR20010056377	20010913
MXPA01009250 A1	20020415	MX2001PA09250	20010913
MXPA01009251 A1	20020415	MX2001PA09251	20010913
MXPA01011868 A1	20020524	MX2001PA11868	20011119
NO20014440 A	20020315	NO20010004440	20010913
NO20014440 A0	20010913	NO20010004440	20010913
NO20014440 L	20020315	NO20010004440	20010913
NO20014441 A	20020315	NO20010004441	20010913
NO20014441 A0	20010913	NO20010004441	20010913
NO20014441 L	20020315	NO20010004441	20010913
NZ513615 A	20010928	NZ20010513615	20010817
NZ513616 A	20010928	NZ20010513616	20010817
SG101467 A1	20040130	SG20010005307	20010829
SG104274 A1	20040621	SG20010005305	20010829
TH47197 A	20010917	TH20001004211	20001101
TH50718 A	20020419	TH20011003705	20010912
TH50907 A	20020507	TH20011003706	20010912
TH63857 A	20040908	TH20011004665	20011116
TW481708 B	20020401	TW20010119340	20010808
TW577951 B	20040301	TW20010119320	20010808
US2002046527 AA	20020425	US20010941500	20010829
US2002194807 AA	20021226	US20020210469	20020731
US2003046895 AA	20030313	US20020278915	20021024
US2003074855 AA	20030424	US20020265900	20021007
US2004244325 AA	20041209	US20030706947	20031114
US6449918 BA	20020917	US20000662388	20000914
US6460306 BA	20021008	US19990436317	19991108
US6769217 BB	20040803	US20020265900	20021007
US6863768 BB	20050308	US20020278915	20021024
US7614197 BB	20091110	US20030706947	20031114
ZA200107201 A	20020306	ZA20010007201	20010830

Priority:

US19990436317 19991108 US20000661705 20000914 US20000662388 20000914

CA20002320015 20000918	CA20002474125 20000918	CA20002474128 20000918
CA20002474132 20000918	US20000715079 20001120	CA20012354857 20010808
CA20012354841 20010809	US20010941500 20010829	CA20012359419 20011019
US20020210469 20020731	US20020265900 20021007	US20020278915 20021024
US20030706947 20031114		

Probable Assignee: WILSONART LLC

Assignee(s): (std): NELSON THOMAS JOHN ; PREMARK RWP HOLDINGS INC ; STOLARSKI VICTORIA L ; STONE JAMES W ; SUOPYS ALGIS

Assignee(s): THOMAS JNELSON ; VICTORIA L STOLARSKI ; WILSONART LLC ; PREMARK RWP HOLDINGS INC 1300 MARKET STREET WILMINGTON DELAWARE 19801 ; PREMARK RWP HOLDINGS LLC ; RAJESH RAMAMURTHY ; RAMAMURTHY RAJESH ; ROSENTHAL GUY L ; DEUTSCHE BANK NEW YORK BRANCH AG ; HAFFNER CURT RICHARD ; HEISSERER JAMIE ; MALINA JERRY LEE ; NELSON THOMAS J

Inventor(s): (std): KUHLT R HAFNA ; LAJESK LAMAMUTI ; LAMAMUTI LAJESK ; MALINA JERRY L ; MALINA JERRY LEE ; NALSON THOMAS J ; NELSON THOMAS J ; NELSON THOMAS JOHN ; NILSEN T J ; NILSEN THOMAS JOHN ; RAJESH RAMAMURTHY ; RAMAMURTHY RAJESH ; ROSENTHAL GUY L ; STOLARSKI VICTORIA L ; STONE JAMES W ; STORASKI VIDORLIYA L ; SUOPYS ALGIS ; THOMAS J NALSON ; THOMAS J NELSON ; HAFFNER CURT RICHARD ; HEISSERER JAMIE ; JELLY L MARINA ; THOMAS JOHN NELSON ; THOMAS JOHN NILSEN ; TJ NILSEN ; VICTORIA L STOLARSKI ; VIDORLIYA L STORASKI ; STOLASKI VITORIA L ; SLOTARSKI VICTORIA L ; RAMAMUS RAJESH ; MARINA JELLY L ; HAFNA KUHLT R

Inventor(s): THOMS J NELSON ; T J NILSEN ; JERRY LEE MALINA ; ALGIS SUOPYS ; CURT RICHARD HAFFNER ; GUY L ROSENTHAL ; JAMES W STONE ; JAMIE HEISSERER ; THOMAS JNELSON

Agent(s): ALLENS PATENT AND TRADE MARK ATTORNEYS; ALLENS ARTHUR ROBINSON; GOWLING LAFLEUR HENDERSON LLP; WILLIAMS DAVIS HILL AND CO SUITE 701 7TH FLOOR 6 8 POTTINGER STREET CENTRAL HONG; BAKER BOTTS LLP; WELSH AND FLAXMAN LLC

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR030607 AA	20030827	LSPB	+	published / reissued	
AR030607 AA	20081103	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
AR030716 AA	20030903	LSPB	+	published / reissued	
AR030716 AA	20081103	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
AT280292 E	20041115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT280292 E	20050415	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1188878 COUNTRY OF REF DOCUMENT : EP
AT280292 E	20100515	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT280292 E	20210816	PEXP		Calculated Patent Term Expiry	
AT292721 E	20050415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT292721 E	20060215	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1188879 COUNTRY OF REF DOCUMENT : EP
AT292721 E	20110515	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT292721 E	20210817	PEXP		Calculated Patent Term Expiry	
AT294303 E	20050515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT294303 E	20060115	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1098048 COUNTRY OF REF DOCUMENT : EP
AT294303 E	20100815	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT294303 E	20201106	PEXP		Calculated Patent Term Expiry	
AU200163584 A1	20021114	LSPB	+	published /	

AU200163585 A1	20021114	LSPB	+	reissued published / reissued	
AU200163585 A5	20020502	LSRE	DA3	AMENDMENTS MADE SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS: AMEND THE INVENTORS TO INCLUDE RAJESH RAMAMURTHY AND VICTORIA L STOLARSKI
AU761966 B2	20030612	LSGT	+	granted / extensions (spc, cpc, pte)	
AU761966 B2	20020502	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: AMEND THE INVENTORS TO INCLUDE RAJESH RAMAMURTHY AND VICTORIA L STOLARSKI
AU761966 B2	20031016	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU761966 B2	20210822	PEXP		Calculated Patent Term Expiry	
AU763968 B2	20030807	LSGT	+	granted / extensions (spc, cpc, pte)	
AU763968 B2	20031211	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU763968 B2	20210822	PEXP		Calculated Patent Term Expiry	
BRPI0005216 A	20010904	LSPB	+	published / reissued	
BRPI0005216 A	20081014	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 7A E 8A ANUIDADES.
BRPI0005216 A	20090811	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO PUBLICADO NA RPI 1971 DE 14/10/2008.
BRPI0103780 A	20020604	LSPB	+	published / reissued	
BRPI0103780 A	20080325	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI0103780 A	20080902	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO PUBLICADO NA RPI 1942 DE 25/03/2008.
BRPI0103833 A	20020507	LSPB	+	published / reissued	
BRPI0103833 A	20080325	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI0103833 A	20080902	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO PUBLICADO NA RPI 1942 DE 25/03/2008.
BRPI0105076 A	20020625	LSPB	+	published / reissued	
BRPI0105076 A	20090324	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF	TEXT : REFERENTE A 6A E 7A ANUIDADES

				INDUSTRIAL PROPERTY LAW	
BRPI0105076 A	20100406	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 DA RPI 1994 DE 24/03/2009
CA2320015 AA	20010508	LSPB	+	published / reissued	
CA2320015 AA	20000918	LSES	+EEER	EXAMINATION REQUEST	
CA2320015 C	20051129	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2320015 C	20100920	LSLE	-MKLA	LAPSED	
CA2320015 C	20200918	PEXP		Calculated Patent Term Expiry	
CA2354841 AA	20020314	LSPB	+	published / reissued	
CA2354841 AA	20010809	LSES	+EEER	EXAMINATION REQUEST	
CA2354841 AA	20070810	LSLE	-FZDE	DEAD	
CA2354857 AA	20020314	LSPB	+	published / reissued	
CA2354857 AA	20010808	LSES	+EEER	EXAMINATION REQUEST	
CA2354857 C	20071023	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2354857 C	20110808	LSLE	-MKLA	LAPSED	
CA2354857 C	20210808	PEXP		Calculated Patent Term Expiry	
CA2359419 AA	20020520	LSPB	+	published / reissued	
CA2359419 AA	20011019	LSES	+EEER	EXAMINATION REQUEST	
CA2359419 AA	20061019	LSLE	-FZDE	DEAD	
CA2474125 AA	20010508	LSPB	+	published / reissued	
CA2474125 AA	20040810	LSES	+EEER	EXAMINATION REQUEST	
CA2474125 AA	20090403	LSLE	-FZDE	DEAD	
CA2474128 AA	20010508	LSPB	+	published / reissued	
CA2474128 AA	20040810	LSES	+EEER	EXAMINATION REQUEST	
CA2474128 AA	20090406	LSLE	-FZDE	DEAD	
CA2474132 AA	20010508	LSPB	+	published / reissued	
CA2474132 AA	20040810	LSES	+EEER	EXAMINATION REQUEST	
CA2474132 AA	20090504	LSLE	-FZDE	DEAD	
CN1117201 C	20030806	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1117201 C	20030806	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1117201 C	20110202	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN1117201 C	20201101	PEXP		Calculated Patent Term Expiry	
CN1131914 C	20031224	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1131914 C	20031224	LSGT	+C14	GRANT OF PATENT OR UTILITY	

CN1131914 C	20070117	LSLE	-C19	MODEL LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE
CN1131914 C	20211120	PEXP		Calculated Patent Term Expiry
CN1205398 C	20050608	LSGT	+	granted / extensions (spc, cpc, pte)
CN1205398 C	20050608	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN1205398 C	20100922	LSLE	-C17	CESSATION OF PATENT RIGHT
CN1205398 C	20210912	PEXP		Calculated Patent Term Expiry
CN1236182 C	20060111	LSGT	+	granted / extensions (spc, cpc, pte)
CN1236182 C	20060111	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN1236182 C	20071121	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE
CN1236182 C	20210912	PEXP		Calculated Patent Term Expiry
CN1295166 A	20010516	LSPB	+	published / reissued
CN1295166 A	20010516	LSPB	+C06	PUBLICATION
CN1343823 A	20020410	LSPB	+	published / reissued
CN1343823 A	20020410	LSPB	+C06	PUBLICATION
CN1343824 A	20020410	LSPB	+	published / reissued
CN1343824 A	20020410	LSPB	+C06	PUBLICATION
CN1354312 A	20020619	LSPB	+	published / reissued
CN1354312 A	20020619	LSPB	+C06	PUBLICATION
DE60019701 D1	20060524	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE60019701 D1	20060524	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE60019701 D1	20100916	LSLE	-8339	CEASED/NON- PAYMENT OF THE ANNUAL FEE
DE60019701 D1	20100916	LSLE	-8339	CEASED/NON- PAYMENT OF THE ANNUAL FEE
DE60019701 T2	20060119	LSGT	+	granted / extensions (spc, cpc, pte)
DE60019701 T2	20060524	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE60019701 T2	20100916	LSLE	-8339	CEASED/NON- PAYMENT OF THE ANNUAL FEE
DE60019701 T2	20201106	PEXP		Calculated Patent Term Expiry
DE60106543 D1	20051117	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE60106543 D1	20051117	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE60106543 D1	20051117	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION

DE60106543 D1	20051117	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60106543 D1	20100624	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE60106543 D1	20100624	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE60106543 T2	20060119	LSGT	+	granted / extensions (spc, cpc, pte)	
DE60106543 T2	20210816	PEXP		Calculated Patent Term Expiry	
DE60106543 T8	20100624	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE60109868 D1	20060518	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60109868 D1	20060518	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60109868 D1	20100624	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE60109868 D1	20100624	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE60109868 T2	20060216	LSGT	+	granted / extensions (spc, cpc, pte)	
DE60109868 T2	20060518	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60109868 T2	20100624	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE60109868 T2	20210817	PEXP		Calculated Patent Term Expiry	
EP1098048 A1	20010509	LSPB	+	published / reissued	
EP1098048 A1	20010509	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20001106
EP1098048 A1	20011010	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20010824
EP1098048 A1	20020130	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
EP1098048 B1	20050427	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1098048 B1	20050427	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050427
EP1098048 B1	20050427	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050427
EP1098048 B1	20050427	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1098048 B1	20050429	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1098048 B1	20050518	LSGT	REG	REFERENCE TO A	REF COUNTRY CODE : IE

				NATIONAL CODE	REF LEGAL EVENT CODE : FG4D
EP1098048 B1	20050727	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050727
EP1098048 B1	20050727	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050727
EP1098048 B1	20051010	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20051010
EP1098048 B1	20051028	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1035755 COUNTRY OF REF DOCUMENT : HK
EP1098048 B1	20051101	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2241539 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1098048 B1	20051106	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20051106
EP1098048 B1	20051107	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20051107
EP1098048 B1	20051130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20051130
EP1098048 B1	20051130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20051130
EP1098048 B1	20060419	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20060130
EP1098048 B1	20060906	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1098048 B1	20071030	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : PREMARK RWP HOLDINGS, INC. REF LEGAL EVENT CODE : PFA OLDPARTY : PREMARK RWP HOLDINGS, INC.#300 DELAWARE AVENUE#WILMINGTON, DELAWARE 19801 (US) -TRANSFER TO- PREMARK RWP HOLDINGS, INC.#300 DELAWARE AVENUE#WILMINGTON, DELAWARE 19801 (US)
EP1098048 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20071126 YEAR OF FEE PAYMENT : 8

				NATIONAL OFFICE TO EPO]	
EP1098048 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20071124 YEAR OF FEE PAYMENT : 8
EP1098048 B1	20080229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20071129 YEAR OF FEE PAYMENT : 8
EP1098048 B1	20080229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20071127 YEAR OF FEE PAYMENT : 8
EP1098048 B1	20080331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20071128 YEAR OF FEE PAYMENT : 8
EP1098048 B1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20071119 YEAR OF FEE PAYMENT : 8
EP1098048 B1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20071128 YEAR OF FEE PAYMENT : 8
EP1098048 B1	20090227	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20081021 YEAR OF FEE PAYMENT : 9
EP1098048 B1	20090529	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20081223 YEAR OF FEE PAYMENT : 9
EP1098048 B1	20090630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1098048 B1	20090714	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP1098048 B1	20090729	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20081106
EP1098048 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090601
EP1098048 B1	20090731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20090128 YEAR OF FEE PAYMENT : 9
EP1098048 B1	20090803	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20090601
EP1098048 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081106

EP1098048 B1	20090911	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20090731
EP1098048 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081130
EP1098048 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081130
EP1098048 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081106
EP1098048 B1	20100128	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20081107
EP1098048 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081107
EP1098048 B1	20100531	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *PREMARK RWP HOLDINGS INC. EFFECTIVE DATE : 20091130
EP1098048 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081107
EP1098048 B1	20100831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20091106
EP1098048 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20091130
EP1098048 B1	20101130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100601
EP1098048 B1	20110930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081130
EP1098048 B1	20201106	PEXP		Calculated Patent Term Expiry	
EP1188878 A1	20020320	LSPB	+	published / reissued	
EP1188878 A1	20020320	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010816
EP1188878 A1	20021009	LSES	+17Q	FIRST EXAMINATION	EFFECTIVE DATE : 20020826

EP1188878 A1	20021211	LSFE	+AKX	REPORT DESPATCHED DESIGNATION FEES PAID	TEXT : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
EP1188878 B1	20041020	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1188878 B1	20041020	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 : 20041020
EP1188878 B1	20041020	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 : 20041020
EP1188878 B1	20041020	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1188878 B1	20041029	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1188878 B1	20041117	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1188878 B1	20050120	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 : 20050120
EP1188878 B1	20050120	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 : 20050120
EP1188878 B1	20050429	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1042737 COUNTRY OF REF DOCUMENT : HK
EP1188878 B1	20050501	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2230222 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1188878 B1	20050816	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 : 20050816
EP1188878 B1	20050816	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 : 20050816
EP1188878 B1	20050816	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 : 20050816
EP1188878 B1	20050831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20050831
EP1188878 B1	20051012	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050721
EP1188878 B1	20060517	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1188878 B1	20071030	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : PREMARK RWP HOLDINGS, INC. REF LEGAL EVENT CODE : PFA OLDPARTY : PREMARK RWP HOLDINGS, INC.#1300 NORTH MARKET STREET#WILMINGTON, DELAWARE 19801 (US) -TRANSFER TO- PREMARK RWP HOLDINGS, INC.#1300 NORTH MARKET STREET#WILMINGTON, DELAWARE 19801 (US)
EP1188878 B1	20071124	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20070827 YEAR OF FEE PAYMENT : 7
EP1188878 B1	20080102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050320
EP1188878 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20070828 YEAR OF FEE PAYMENT : 7
EP1188878 B1	20081031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20080826 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20081031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20080824 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20081128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20080801 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20081128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20080818 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20081231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20080827 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20090130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20080930 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20090227	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20080922 YEAR OF FEE PAYMENT : 8
EP1188878 B1	20090227	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20080827 YEAR OF FEE PAYMENT : 8

TO EPO]					
EP1188878 B1	20090331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1188878 B1	20090630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080831
EP1188878 B1	20090630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080831
EP1188878 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080816
EP1188878 B1	20100228	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *PREMARK RWP HOLDINGS INC. EFFECTIVE DATE : 20090831
EP1188878 B1	20100331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20100301
EP1188878 B1	20100428	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20090816
EP1188878 B1	20100521	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20100430
EP1188878 B1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090816
EP1188878 B1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090831
EP1188878 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100302
EP1188878 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090831
EP1188878 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100301
EP1188878 B1	20101028	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20090817
EP1188878 B1	20101130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20090816
EP1188878 B1	20110531	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 : 20090817
EP1188878 B1	20111031	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 : 20090817
EP1188878 B1	20210816	PEXP		Calculated Patent Term Expiry	
EP1188879 A1	20020320	LSPB	+	published / reissued	
EP1188879 A1	20020320	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010817
EP1188879 A1	20020911	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020729
EP1188879 A1	20021211	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
EP1188879 A1	20041103	LSRE	RTI1	TITLE (CORRECTION)	TEXT : INTERCONNECTING DISENGAGEABLE FLOORING SYSTEM
EP1188879 B1	20050406	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1188879 B1	20050406	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 : 20050406
EP1188879 B1	20050406	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 : 20050406
EP1188879 B1	20050406	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1188879 B1	20050415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1188879 B1	20050504	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1188879 B1	20050706	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 : 20050706
EP1188879 B1	20050706	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 : 20050706
EP1188879 B1	20050817	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 : 20050817

EP1188879 B1	20050817	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050817
EP1188879 B1	20050817	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050817
EP1188879 B1	20050831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050831
EP1188879 B1	20050908	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050908
EP1188879 B1	20051016	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2240290 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1188879 B1	20060329	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20060110
EP1188879 B1	20060517	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1188879 B1	20070827	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20070827 YEAR OF FEE PAYMENT : 7
EP1188879 B1	20071030	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : PREMARK RWP HOLDINGS, INC. REF LEGAL EVENT CODE : PFA OLDPARTY : PREMARK RWP HOLDINGS, INC.#1300 NORTH MARKET STREET#WILMINGTON, DELAWARE 19801 (US) -TRANSFER TO- PREMARK RWP HOLDINGS, INC.#1300 NORTH MARKET STREET#WILMINGTON, DELAWARE 19801 (US)
EP1188879 B1	20071124	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20070827 YEAR OF FEE PAYMENT : 7
EP1188879 B1	20080102	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20070830 YEAR OF FEE PAYMENT : 7
EP1188879 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20070828 YEAR OF FEE PAYMENT : 7
EP1188879 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20070824 YEAR OF FEE PAYMENT : 7
EP1188879 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20070829

EP1188879 B1	20080430	LSFE	+PGFP	OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 7 COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20070817 YEAR OF FEE PAYMENT : 7
EP1188879 B1	20090130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20080930 YEAR OF FEE PAYMENT : 8
EP1188879 B1	20090227	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20080922 YEAR OF FEE PAYMENT : 8
EP1188879 B1	20090331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1188879 B1	20090414	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP1188879 B1	20090429	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20080817
EP1188879 B1	20090506	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20090301
EP1188879 B1	20090529	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 : 20090301
EP1188879 B1	20090605	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20090430
EP1188879 B1	20090630	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 : 20080831
EP1188879 B1	20090630	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 : 20080831
EP1188879 B1	20090831	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 : 20080901
EP1188879 B1	20090831	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 : 20080817
EP1188879 B1	20091027	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20080818
EP1188879 B1	20091130	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 : 20080817

EP1188879 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20090803 YEAR OF FEE PAYMENT : 9
EP1188879 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080818
EP1188879 B1	20100228	LSLE	-BERE	BE: LAPSED	PARTY TYPE : OWNER REF COUNTRY CODE : EP OWNER : *PREMARK RWP HOLDINGS INC. EFFECTIVE DATE : 20090831
EP1188879 B1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090831
EP1188879 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100302
EP1188879 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080818
EP1188879 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100817
EP1188879 B1	20210817	PEXP		Calculated Patent Term Expiry	
EP1207246 A1	20020522	LSPB	+	published / reissued	
EP1207246 A1	20020522	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20011116
EP1207246 A1	20030122	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20021210
EP1207246 A1	20030212	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : TR
EP1207246 A1	20061122	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20060601
ES2230222 T3	20050501	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2230222 T3	20210816	PEXP		Calculated Patent	

ES2240290 T3	20051016	LSGT	+	Term Expiry granted / extensions (spc, cpc, pte)	
ES2240290 T3	20210817	PEXP		Calculated Patent Term Expiry	
ES2241539 T3	20051101	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2241539 T3	20201106	PEXP		Calculated Patent Term Expiry	
HK1042737 A1	20050429	LSPB	+	published / reissued	
HK1042737 A1	20090327	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20080816
HK1042737 A1	20220430	PEXP		Calculated Patent Term Expiry	
HK1042737 B	20050429	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1042737 B	20220430	PEXP		Calculated Patent Term Expiry	
IN00741MU2001 A	20050218	LSPB	+	published / reissued	
IN00742MU2001 A	20050218	LSPB	+	published / reissued	
IN203196 B	20070511	LSGT	+	granted / extensions (spc, cpc, pte)	
IN203196 B	20210801	PEXP		Calculated Patent Term Expiry	
IN203197 B	20070511	LSGT	+	granted / extensions (spc, cpc, pte)	
IN203197 B	20210801	PEXP		Calculated Patent Term Expiry	
JP2002138653 A2	20020517	LSPB	+	published / reissued	
JP2002138653 A2	20040518	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20040517
JP2002138653 A2	20040727	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20040726
JP2002138653 A2	20041104	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20041102
JP2002138653 A2	20050131	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20041227
JP2002138653 A2	20050203	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20050202
JP2002138653 A2	20050222	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2002138653 A2	20050301	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20050228
JP2002138653 A2	20050331	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20050325
JP2002138653 A2	20050401	LSGT	+R150	CERTIFICATE OF	TEXT : JAPANESE INTERMEDIATE

JP2002155615 A2	20020531	LSPB	+	PATENT OR REGISTRATION OF UTILITY MODEL published / reissued	CODE: R150
JP2002155615 A2	20040518	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20040517
JP2002155615 A2	20040727	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20040726
JP2002155615 A2	20041104	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20041102
JP2002155615 A2	20050131	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20041227
JP2002155615 A2	20050203	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20050202
JP2002155615 A2	20050222	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2002155615 A2	20050301	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20050228
JP2002155615 A2	20050331	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20050325
JP2002155615 A2	20050401	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP3663162 B2	20050622	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3663162 B2	20080401	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3663162 B2	20210914	PEXP		Calculated Patent Term Expiry	
JP3663163 B2	20050622	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3663163 B2	20080422	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3663163 B2	20090401	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3663163 B2	20210914	PEXP		Calculated Patent Term Expiry	
KR100486438 B1	20050503	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100486438 B1	20080417	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20080418 YEAR OF FEE PAYMENT : 4
KR100486438 B1	20090422	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100486438 B1	20210913	PEXP		Calculated Patent Term Expiry	
KR100486439 B1	20050429	LSGT	+	granted /	

				extensions (spc, cpc, pte)
KR100486439 B1	20080422	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR100486439 B1	20210913	PEXP		Calculated Patent Term Expiry
KR20020021335 A	20020320	LSPB	+	published / reissued
KR20020021335 A	20010913	LSES	A201	REQUEST FOR EXAMINATION
KR20020021335 A	20040727	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20020021335 A	20050131	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20020021335 A	20050421	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20020021339 A	20020320	LSPB	+	published / reissued
KR20020021339 A	20010913	LSES	A201	REQUEST FOR EXAMINATION
KR20020021339 A	20040727	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20020021339 A	20050131	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20020021339 A	20050421	LSGT	+GRNT	WRITTEN DECISION TO GRANT
MXPA01009250 A1	20020415	LSPB	+	published / reissued
MXPA01009251 A1	20020415	LSPB	+	published / reissued
MXPA01011868 A1	20020524	LSPB	+	published / reissued
NO20014440 A	20020315	LSPB	+	published / reissued
NO20014440 A	20051107	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION
NO20014441 A	20020315	LSPB	+	published / reissued
NO20014441 A	20051107	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION
NZ513615 A	20010928	LSPB	+	published / reissued
NZ513615 A	20030725	LSWD	-AVOD	APPLICATION VOID
NZ513616 A	20010928	LSPB	+	published / reissued
NZ513616 A	20031031	LSGT	+PSEA	PATENT SEALED
NZ513616 A	20050429	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)
SG101467 A1	20040130	LSPB	+	published / reissued
SG104274 A1	20040621	LSPB	+	published / reissued
TH47197 A	20010917	LSPB	+	published / reissued
TH50718 A	20020419	LSPB	+	published / reissued
TH50907 A	20020507	LSPB	+	published / reissued

TH63857 A	20040908	LSPB	+	published / reissued	
TW481708 B	20020401	LSGT	+	granted / extensions (spc, cpc, pte)	
TW481708 B	20210808	PEXP		Calculated Patent Term Expiry	
TW577951 B	20040301	LSGT	+	granted / extensions (spc, cpc, pte)	
TW577951 B	20081201	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW577951 B	20210808	PEXP		Calculated Patent Term Expiry	
US2002046527 AA	20020425	LSPB	+	published / reissued	
US2002046527 AA	20051130	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002194807 AA	20021226	LSPB	+	published / reissued	
US2002194807 AA	20020731	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:NELSON, THOMAS JOHN; ROSENTHAL, GUY L.; HEISSERER, JAMIE; AND OTHERS; REEL/FRAME:013167/0861; SIGNING DATES FROM 20020711 TO 20020726
US2002194807 AA	20051212	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2003046895 AA	20030313	LSPB	+	published / reissued	
US2003046895 AA	20130408	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US2003074855 AA	20030424	LSPB	+	published / reissued	
US2004244325 AA	20041209	LSPB	+	published / reissued	
US6449918 BA	20020917	LSGT	+	granted / extensions (spc, cpc, pte)	
US6449918 BA	20001120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NELSON, THOMAS JOHN; REEL/FRAME:011298/0820 EFFECTIVE DATE : 20001114
US6449918 BA	20010313	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NELSON, THOMAS JOHN; REEL/FRAME:011637/0329 EFFECTIVE DATE : 20001114
US6449918 BA	20011001	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:NELSON, THOMAS JOHN; RAMAMURTHY, RAJESH; STOLARSKI, VICTORIA L.; REEL/FRAME:012216/0376; SIGNING DATES FROM 20010917 TO 20010918
US6449918 BA	20021231	LSRE	CC	CERTIFICATE OF	

US6449918 BA	20060117	LSRE	CC	CORRECTION CERTIFICATE OF CORRECTION	
US6449918 BA	20060317	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6449918 BA	20100917	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6449918 BA	20101018	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6449918 BA	20101018	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6449918 BA	20101109	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20100917
US6449918 BA	20200914	PEXP		Calculated Patent Term Expiry	
US6460306 BA	20021008	LSGT	+	granted / extensions (spc, cpc, pte)	
US6460306 BA	20000209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NELSON, THOMAS JOHN; REEL/FRAME:010616/0338 EFFECTIVE DATE : 20000202
US6460306 BA	20060410	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6460306 BA	20100408	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6460306 BA	20121114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, LLC, DELAWARE OLDPARTY : CHANGE OF NAME; ASSIGNOR:PREMARK RWP HOLDINGS, INC.; REEL/FRAME:029295/0950 EFFECTIVE DATE : 20121031
US6460306 BA	20121116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WILSONART LLC, TEXAS OLDPARTY : MERGER; ASSIGNOR:PREMARK RWP HOLDINGS, LLC; REEL/FRAME:029314/0482 EFFECTIVE DATE : 20121031
US6460306 BA	20121121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DEUTSCHE BANK AG NEW YORK BRANCH, NEW YORK OLDPARTY : NOTICE AND CONFIRMATION OF GRANT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:WILSONART LLC; REEL/FRAME:029341/0279 EFFECTIVE DATE : 20121031
US6460306 BA	20141008	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6460306 BA	20141103	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6460306 BA	20141103	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6460306 BA	20141125	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20141008
US6460306 BA	20191108	PEXP		Calculated Patent Term Expiry	
US6769217 BB	20040803	LSGT	+	granted /	

US6769217 BB	20080204	LSFE	+FPAY	extensions (spc, cpc, pte) FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6769217 BB	20120803	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6769217 BB	20120903	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6769217 BB	20120903	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6769217 BB	20120925	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20120803
US6769217 BB	20221007	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6863768 BB	20050308	LSGT	+	granted / extensions (spc, cpc, pte)	
US6863768 BB	20080908	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6863768 BB	20130308	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6863768 BB	20130408	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6863768 BB	20130430	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20130308
US6863768 BB	20221024	PEXP		Calculated Patent Term Expiry	
US7614197 BB	20091110	LSGT	+	granted / extensions (spc, cpc, pte)	
US7614197 BB	20040615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NELSON, THOMAS J; REEL/FRAME:014731/0309 EFFECTIVE DATE : 20040503
US7614197 BB	20091021	LSGT	PAT1	Patented Case	
US7614197 BB	20101019	LSRE	CC	CERTIFICATE OF CORRECTION	
US7614197 BB	20121114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PREMARK RWP HOLDINGS, LLC, DELAWARE OLDPARTY : CHANGE OF NAME; ASSIGNOR:PREMARK RWP HOLDINGS, INC.; REEL/FRAME:029295/0950 EFFECTIVE DATE : 20121031
US7614197 BB	20121116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WILSONART LLC, TEXAS OLDPARTY : MERGER; ASSIGNOR:PREMARK RWP HOLDINGS, LLC; REEL/FRAME:029314/0482 EFFECTIVE DATE : 20121031
US7614197 BB	20121121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DEUTSCHE BANK AG NEW YORK BRANCH, NEW YORK OLDPARTY : NOTICE AND CONFIRMATION OF GRANT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:WILSONART LLC; REEL/FRAME:029341/0279 EFFECTIVE DATE : 20121031
US7614197 BB	20130508	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US7614197 BB	20171211	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US7614197 BB	20171211	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7614197 BB	20171211	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7614197 BB	20180102	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20171110
US7614197 BB	20270314	PEXP		Calculated Patent Term Expiry (PTA 1216 days)	
ZA200107201 A	20020306	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200107201 A	20210829	PEXP		Calculated Patent Term Expiry	

Title: CORED PROFILED BUILDING PANELS AND BEAMS

Abstract: Building system uses panels comprising a thermoplastic envelope filled with a rigid hollow core, pref. a synthetic foam or cast slag, the edges being profiled to engage one another or a profiled framework. Seals may be used. Panels assembled vertically pref. engage with an angled lip pointing downwards. The posts are pref. a coaxial plastic profile and a metal core tube, pref. with flared flanges, the space between pref. being bridged by a rigid plastic foam. Pref. assembled using a bitumen-based adhesive hot enough to form a bond with the plastic surfaces and form a permanent, resilient seal. One panel features studs in the ground so panels linked by tie bars can form a staggered wall. The panels may enclose support sound absorbent material (foamed polyethylene), may have a decorative cover, profile or texture. For erecting building or vision or acoustic barriers besides roads, airfields, etc. Text mentions component panels 95 cm long, 25 cm deep and 6 to 8 cm thick.

Classifications:

International (IPC 8-9): E01C1/00 E01F7/06 E01F8/00 E04B1/12

E04B1/28 E04C2/20 E04C3/36 (Advanced/Invention);

E01C1/00 E01F7/00 E01F8/00 E04B1/02 E04B1/28 E04C2/10

E04C3/30 (Core/Invention)

International (IPC 1-7): E01C1/00 E01F7/06 E01F8/00 E04C2/24

F16S3/04

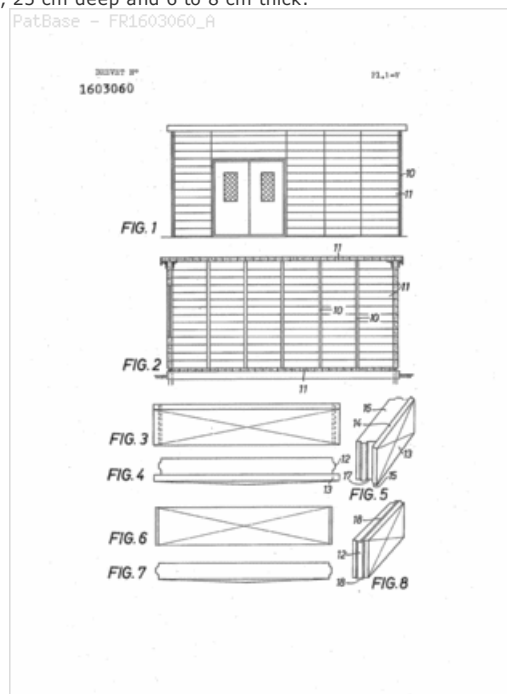
CPC: E01C1/005 E01F7/06 E01F8/0035 E04B1/12 E04B1/28 E04C2/205

E04C3/36

European: E01C1/00C E01F7/06 E01F8/00A25 E04B1/12 E04B1/28

E04C2/20B E04C3/36

PatBase - FR1603060_A



Family:

Publication number	Publication date	Application number	Application date
FR1603060 A	19710315		19680823

Priority:

DE19671659088 19670826

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
FR1603060 A	19710315	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1603060 A	19880823	PEXP		Calculated Patent Term Expiry	

Title: DEVICE AND METHOD TO PROVIDE AIR CIRCULATION SPACE PROXIMATE TO INSULATION MATERIAL

Abstract: A spacer device is provided including (1) a body having a plurality of openings defining an openwork, to allow the passage of air therethrough when placed in contact with insulation material, and (2) a plurality of spacer struts fixedly attached to the body. The struts are configured to maintain a predetermined distance between a first side of the insulation material and a building surface. The body and struts act together to define and maintain a space between the first side of the insulation material and the building surface, for example, for ventilation. The building surface can be the bottom face of a roof, an attic floor, wall sheathing or a soundproofed demising wall, for example. The spacer device can be capable of being transported and stored together with, or as a separate item from, the insulation material, and can also be stored in nested layers. The device can also be stored in rolled form. The openwork of the device can additionally or alternatively include a sheet of entangled net filaments.

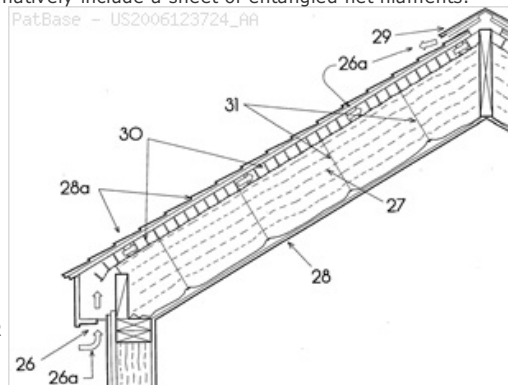
Classifications:

International (IPC 8-9): A47B96/06 A47F5/00 A47F5/08 B22C9/00 B22D25/02 B23P17/00 B28B7/34 B29C33/38 B29C33/40 B29C39/02 B29C71/00 B29C71/04 C25B9/00 D04H1/4266 D04H1/435 D04H1/55 D04H1/558 D04H11/00 E01C19/22 E01C5/00 E02D19/00 E04B1/66 E04B1/70 E04B1/74 E04B1/76 E04B2/00 E04B2/56 E04B2/74 E04B7/00 E04B9/00 E04B9/02 E04B9/06 E04B9/22 E04C2/20 E04D12/00 E04D13/16 E04D13/17 E04F13/14 E04F17/00 E04F17/02 E04F17/04 E04H7/22 E06C7/14 F04B15/06 F04B17/03 F04B19/00 F04B35/04 F04C13/00 F16M11/00 F24F13/02 (Advanced/Invention); E04B1/76 E04B1/88 E04B2/74 (Advanced/Non-invention); A47B96/06 A47F5/00 A47F5/08 B23P17/00 E01C19/22 E02D19/00 E04B1/66 E04B1/70 E04B1/74 E04B7/00 E04B9/00 E04B9/02 E04B9/06 E04B9/22 E04F17/00 E04H7/00 F04B15/00 F04B19/00 F04C13/00 F16M11/00 (Core/Invention)

CPC: A47K1/09 A47K3/003 A47K5/04 A47K10/04 A47K10/38 A47K17/022 A47K2201/00 A47K2201/02 E04F13/142 B29C33/424 B22C9/00 B29C33/3842 B29C33/405 B29C39/006 B29L2031/756 B81C99/0085 B81C99/009 B82Y10/00 B82Y40/00 G03F7/0002 G03F7/0017 E04F13/14 D04H11/00 F24F2005/0082 E01C5/06 E01C2201/12 E01C5/00 D04H1/4266 D04H1/4274 D04H1/435 D04H1/54 D04H1/55 D04H1/558 E04B1/7069 E04B1/88 Y10T428/23929 F04B17/044 F04C2/063 F04C15/0069 F24F13/02 E01C9/001 B28B3/20 B28B11/003 Y10T29/4998 E04F13/007 F24F5/0075 Y02A30/26 Y02B30/92 E04B1/7076 E04B1/74 E04B1/7662 E04B2/7409 E04B2/7457 E04B2002/7488 E04D12/002 E04B1/7612 E04B2/00 E04B7/00 E04D13/1625 E04D13/17 E04D13/172 E04F17/00 E04F17/02 E04F17/04

European: A47K1/09 A47K10/04 A47K10/38 A47K17/02B A47K3/00B2 A47K5/04 B22C9/00 B28B11/00E B29C33/38M B29C33/40B B29C33/42C B29C39/00B2 B81C99/00R4 B81C99/00R6 B82Y10/00 B82Y40/00 E01C9/00B E04B1/74 E04B1/76C1 E04B1/76E2B E04B2/74C2 E04B2/74C5C E04D12/00B E04D13/16A1C E04D13/17 E04D13/17A E04F13/00B E04F13/14D E04F17/00 E04F17/02 E04F17/04 F04B17/04B2 F04C15/00E2D F04C2/063 F24F5/00K G03F7/00A G03F7/00E K47K201/00 K47K201/02 L28B3/20 L29L31/756 P04B2/74C2 P04B2/74R Y02B30/92

US: 1/1 164/15 164/15S 164/6 164/6S 204/275.1 204/275.100S 211/105.1 211/88.04 248/201 248/205.1 248/205.3 248/210 248/210P 248/251 248/309.1 264/101 264/101S 264/219 264/219S 264/405 264/405S 264/483 264/483P 29/527.1 310/15 310/80 404/118 404/34 404/41 404/73 417/374 417/410.1 417/410.100P 417/420 428/88 52/169.4 52/198 52/198S 52/22 52/22P 52/302.1 52/302.100 52/302.100P 52/302.2 52/302.3 52/302.300S 52/302.6 52/309.1 52/309.100S 52/404.3 52/404.300P 52/588.1 52/741.4 52/741.400P 52/742.1 52/745.06 52/745.060S 52/745.09 52/745.090S 52/95



Family:

Publication number	Publication date	Application number	Application date
US2006123724 AA	20060615	US20050203354	20050812
US2006180722 AA	20060817	US20060348181	20060206
US2008245010 AA	20081009	US20080139442	20080613
US2009166487 AA	20090702	US20090399768	20090306
US2010098489 AA	20100422	US20090582748	20091021
US2010101153 AA	20100429	US20090649946	20091230
US2010229498 AA	20100916	US20100788132	20100526
US2010260624 AA	20101014	US20100819557	20100621
US2011209426 AA	20110901	US20110101334	20110505
US2012126458 AA	20120524	US20090322437	20090702
US2013091793 AA	20130418	US20120633866	20121002
US2013279979 AA	20131024	US20130844776	20130315
US2014013688 AA	20140116	US20130023429	20130910
US2014311070 AA	20141023	US20140317904	20140627
US2016024799 AA	20160128	US20150731103	20150604
US2016376785 AA	20161229	US20160157749	20160518
US2018044912 AA	20180215	US20170673651	20170810
US2019376279 AA	20191212	US20190521246	20190724
US7458189 BB	20081202	US20050203354	20050812
US7503534 BB	20090317	US20060348181	20060206
US7654051 BB	20100202	US20080139442	20080613
US7788868 BB	20100907	US20090649946	20091230
US8011903 BB	20110906	US20100819557	20100621
US8667752 BB	20140311	US20130844776	20130315
US8763330 BB	20140701	US20130023429	20130910
WO07021298 A2	20070222	WO2005US44572	20051208
WO07021298 A3	20071108	WO2005US44572	20051208
WO07092396 A2	20070816	WO2007US03060	20070206
WO07092396 A3	20090903	WO2007US03060	20070206
WO09120670 A1	20091001	WO2009US38056	20090324
WO09152491 A2	20091217	WO2009US47334	20090615
WO09152491 A3	20100325	WO2009US47334	20090615

Priority:

US20040634823P	20041209	US20050650203P	20050204	US20050203354	20050812
US20060348181	20060206	US20070943692P	20070613	US20080035360P	20080310
US20080039429P	20080326	US20080054805P	20080520	US20080139442	20080613
US20080103613P	20081008	US20080107337P	20081021	US20090399768	20090306
US20090159776P	20090312	WO2009US38056	20090324	WO2009US38056	20090326
US20090164424P	20090329	US20090181125P	20090526	US20090322437	20090702
WO2009US49565	20090702	US20090439442	20090804	US20090575439	20091007
US20090582748	20091021	US20090649946	20091230	US20100310383P	20100304
US20100723185	20100312	US20100317271P	20100324	US20100749358	20100329
US20100321130P	20100405	US20100332141P	20100506	US20100332756P	20100508
US20100345144P	20100516	US20100788132	20100526	US20100819557	20100621
US20100823948	20100625	US20100399915P	20100720	US20100390915P	20101007
US20100412958P	20101112	US20100418456P	20101201	US20110445631P	20110223
US20110101334	20110505	US20120699253P	20120910	US20120633866	20121002
US20120734966P	20121208	US20130748533P	20130103	US20130751867P	20130112
US20130844776	20130315	US20130023429	20130910	US20130876219P	20130910
US20130888795P	20131009	US20140930937P	20140123	US20140930944P	20140123
US20140930954P	20140124	US20140317904	20140627	US20140023218P	20140711
US20140035099P	20140808	US20150112157P	20150204	US20150113881P	20150209
US20150118881P	20150220	US20150731103	20150604	US20160157749	20160518
US20170673651	20170810	US20190521246	20190724		

Probable Assignee: HETTRICH HANSL LLC

Assignee(s): (std): CANNON ANDREW H ; HETTRICH HANSL LLC ; KING WILLIAM P ; POLLACK ROBERT ; POLLACK ROBERT W ; POLLACK ROBERT WILLIAM ; UNIV ILLINOIS

Assignee(s): WELLS FARGO BANK NATIONAL ASSOCIATION COLLATERAL AGENT AS ; BOARD OF TRUSTEES OF UNIV OF ILLINOIS ; THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS ; POLLACK DONNA ; POLLACK DONNA M

Inventor(s): (std): CANNON ANDREW H ; KING WILLIAM P ; POLLACK ROBERT W ; POLLACK ROBERT WILLIAM ; POLLACK ROBERT

Agent(s): MILDE AND HOFFBERG LLP; EDWARDS ANGELL PALMER AND DODGE LLP; BRIAN R; DAY PITNEY LLP; BROOKS WILLIAM L ET AL; POLLACK BRIAN R; GIANOLA ADAM J 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 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 YU ZA ZM ZW

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US2006123724 AA	20060615	LSPB	+	published / reissued	
US2006123724 AA	20081112	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006180722 AA	20060817	LSPB	+	published / reissued	
US2008245010 AA	20081009	LSPB	+	published / reissued	
US2009166487 AA	20090702	LSPB	+	published / reissued	
US2009166487 AA	20111213	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009166487 AA	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US2009166487 AA	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US2010098489 AA	20100422	LSPB	+	published / reissued	
US2010098489 AA	20120115	LSWD	-ABD3	Abandoned --	

					Failure to Respond to an Office Action
US2010098489 AA	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US2010098489 AA	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US2010101153 AA	20100429	LSPB	+	published / reissued	
US2010101153 AA	20100818	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010229498 AA	20100916	LSPB	+	published / reissued	
US2010229498 AA	20120725	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2010229498 AA	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US2010229498 AA	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US2010260624 AA	20101014	LSPB	+	published / reissued	
US2010260624 AA	20110817	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011209426 AA	20110901	LSPB	+	published / reissued	
US2011209426 AA	20121126	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011209426 AA	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US2011209426 AA	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US2012126458 AA	20120524	LSPB	+	published / reissued	
US2012126458 AA	20090820	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BOARD OF TRUSTEES

					OF THE UNIVERSITY OF ILLINOI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KING, WILLIAM P.; CANNON, ANDREW H.; SIGNING DATES FROM 20090728 TO 20090730; REEL/FRAME:023125/0248
US2012126458 AA	20120208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KING, WILLIAM P.; CANNON, ANDREW H.; SIGNING DATES FROM 20111220 TO 20120130; REEL/FRAME:027669/0901
US2012126458 AA	20160527	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013091793 AA	20130418	LSPB	+	published / reissued	
US2013091793 AA	20140109	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013091793 AA	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US2013091793 AA	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US2013279979 AA	20131024	LSPB	+	published / reissued	
US2013279979 AA	20140219	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014013688 AA	20140116	LSPB	+	published / reissued	
US2014311070 AA	20141023	LSPB	+	published / reissued	
US2014311070 AA	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US2014311070 AA	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US2014311070 AA	20150622	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2016024799 AA	20160128	LSPB	+	published / reissued	
US2016024799 AA	20160603	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2016376785 AA	20161229	LSPB	+	published / reissued	

US2016376785 AA	20161115	LSES	NFA1	Non Final Action Mailed	
US2016376785 AA	20170501	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA, NEW YORK OLDPARTY : LETTERS OF TESTAMENTARY; ASSIGNOR:POLLACK, DONNA; REEL/FRAME:042198/0105 EFFECTIVE DATE : 20080110
US2016376785 AA	20170829	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA; REEL/FRAME:043441/0083 EFFECTIVE DATE : 20150505
US2016376785 AA	20171220	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2018044912 AA	20180215	LSPB	+	published / reissued	
US2018044912 AA	20170829	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA; REEL/FRAME:043441/0083 EFFECTIVE DATE : 20150505
US2018044912 AA	20170829	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA, NEW YORK OLDPARTY : LETTERS OF TESTAMENTARY; ASSIGNOR:POLLACK, DONNA; REEL/FRAME:043716/0490 EFFECTIVE DATE : 20080110
US2018044912 AA	20180511	LSES	NFA1	Non Final Action Mailed	
US2018044912 AA	20181127	LSES	NFA1	Non Final Action Mailed	
US2018044912 AA	20191122	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2019376279 AA	20191212	LSPB	+	published / reissued	
US2019376279 AA	20200305	LSES	NFA1	Non Final Action Mailed	
US7458189 BB	20081202	LSGT	+	granted / extensions (spc, cpc, pte)	
US7458189 BB	20081112	LSGT	PAT1	Patented Case	
US7458189 BB	20120529	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7458189 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US7458189 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US7458189 BB	20160602	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7458189 BB	20200522	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12

US7458189 BB	20261229	PEXP		Calculated Patent Term Expiry (PTA 504 days)	
US7503534 BB	20090317	LSGT	+	granted / extensions (spc, cpc, pte)	
US7503534 BB	20090225	LSGT	PAT1	Patented Case	
US7503534 BB	20120910	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7503534 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US7503534 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US7503534 BB	20170317	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7503534 BB	20170417	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7503534 BB	20170417	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7503534 BB	20170509	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20170317
US7503534 BB	20260610	PEXP		Calculated Patent Term Expiry (PTA 124 days)	
US7654051 BB	20100202	LSGT	+	granted / extensions (spc, cpc, pte)	
US7654051 BB	20100113	LSGT	PAT1	Patented Case	
US7654051 BB	20130801	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7654051 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US7654051 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US7654051 BB	20170918	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7654051 BB	20180305	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US7654051 BB	20180314	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees	

US7654051 BB	20180314	LSLE	-STCH	Under 37 CFR 1.362 INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7654051 BB	20180327	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180202
US7654051 BB	20280704	PEXP		Calculated Patent Term Expiry (PTA 21 days)	
US7788868 BB	20100907	LSGT	+	granted / extensions (spc, cpc, pte)	
US7788868 BB	20100818	LSGT	PAT1	Patented Case	
US7788868 BB	20140307	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7788868 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US7788868 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US7788868 BB	20180423	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7788868 BB	20180907	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : 7.5 YR SURCHARGE - LATE PMT W/IN 6 MO, SMALL ENTITY (ORIGINAL EVENT CODE: M2555); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7788868 BB	20180907	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7788868 BB	20291230	PEXP		Calculated Patent Term Expiry	
US8011903 BB	20110906	LSGT	+	granted / extensions (spc, cpc, pte)	
US8011903 BB	20110817	LSGT	PAT1	Patented Case	
US8011903 BB	20150306	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8011903 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US8011903 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US8011903 BB	20190429	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY

US8011903 BB	20191014	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
US8011903 BB	20191014	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8011903 BB	20191014	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8011903 BB	20191105	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20190906
US8011903 BB	20300621	PEXP		Calculated Patent Term Expiry	
US8667752 BB	20140311	LSGT	+	granted / extensions (spc, cpc, pte)	
US8667752 BB	20140219	LSGT	PAT1	Patented Case	
US8667752 BB	20140603	LSRE	CC	CERTIFICATE OF CORRECTION	
US8667752 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US8667752 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US8667752 BB	20171023	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8667752 BB	20180312	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : SURCHARGE FOR LATE PAYMENT, SMALL ENTITY (ORIGINAL EVENT CODE: M2554)
US8667752 BB	20180312	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8667752 BB	20330315	PEXP		Calculated Patent Term Expiry	
US8763330 BB	20140701	LSGT	+	granted / extensions (spc, cpc, pte)	
US8763330 BB	20140611	LSGT	PAT1	Patented Case	
US8763330 BB	20150421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLLACK, DONNA M., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEGAL REPRESENTATIVE, DONNA M. POLLACK OF ROBERT W. POLLACK, DECEASED; REEL/FRAME:035555/0394 EFFECTIVE DATE : 20080110
US8763330 BB	20150506	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HETTRICH HANSL LLC, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLLACK, DONNA M.; REEL/FRAME:035596/0942 EFFECTIVE DATE : 20150505
US8763330 BB	20180212	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE:

REM.)					
US8763330 BB	20180730	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US8763330 BB	20180730	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8763330 BB	20180730	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8763330 BB	20330910	PEXP		Calculated Patent Term Expiry	
WO07021298 A2	20070222	LSPB	+	published / reissued	
WO07021298 A3	20080213	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO07021298 A3	20080910	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 05853478 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO07092396 A2	20070816	LSPB	+	published / reissued	
WO07092396 A2	20080807	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO07092396 A2	20090610	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 07763190 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO09120670 A1	20091001	LSPB	+	published / reissued	
WO09120670 A1	20100928	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO09120670 A1	20101022	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 7470/DELNP/2010 COUNTRY OF REF DOCUMENT : IN
WO09120670 A1	20110518	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09725020 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO09152491 A2	20091217	LSPB	+	published / reissued	
WO09152491 A3	20101214	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO09152491 A3	20110831	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09763779 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO10138132 A1	20101202	LSPB	+	published / reissued	
WO10138132 A1	20111128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO10138132 A1	20120208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13322437 COUNTRY OF REF DOCUMENT : US
WO10138132 A1	20120620	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09845350 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: TILE SYSTEM

Abstract: Plural tiles are positioned in a plate-like array. The tiles have edge portions that overlap in such a way that no straight-through **joints** are present between abutting tiles and such that the thickness of the entire array does not substantially exceed the thickness of a single tile.

Classifications:

International (IPC 8-9): B64G1/58 E01C5/00 E04C2/38 E04D1/04 E04D1/12 E04D1/16 E04F E04F13/08 E04F15/02 F23M5/02 F41H1/02 F41H5/013 F41H5/02 F41H5/04 (Advanced/Invention)

CPC: F41H5/013 F41H5/02 F41H5/0414 F41H5/0442 F41H5/0492

F41H1/02 B64G1/58 E01C5/00 E01C2201/12 E04D1/125 E04D1/16

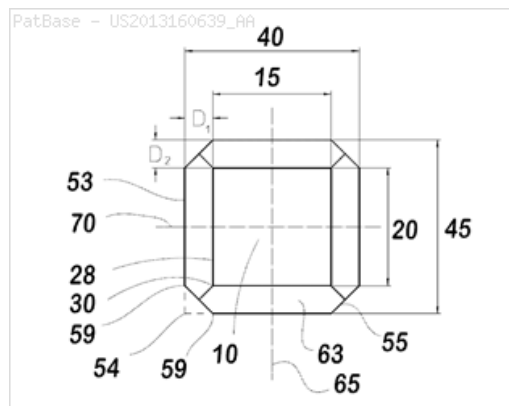
E04F13/08 E04F15/02183 F23M5/02 E04F15/02038 E04F15/02172

European: E01C5/00 E04D1/12D E04D1/16 F41H1/02 F41H5/013

F41H5/02 F41H5/04C F41H5/04D F41H5/04H P01C201/12 P04F13/08

P04F15/02T1

US: 1/1 264/603 52/177 52/588.1 89/36.02 89/903



Family:

Publication number	Publication date	Application number	Application date
CA2846405 AA	20140224	CA20102846405	20100824
EP2609261 A1	20130703	EP20100856510	20100824
EP2609261 A4	20151118	EP20100856510	20100824
EP2609391 A2	20130703	EP20100856511	20100824
IL224772 A0	20130430	IL20100224772	20100824
US2013160639 AA	20130627	US20130776664	20130225
US7793579 BA	20100914	US20080186508	20080805
US9187909 BB	20151117	US20130776664	20130225
WO12026925 A1	20120301	WO2010US46538	20100824
WO12026926 A2	20120301	WO2010US46539	20100824
WO12026926 A3	20120524	WO2010US46539	20100824

Priority:

US20070954017P 20070805 US20080186508 20080805 WO2010US46538 20100824
 WO2010US46539 20100824 US20130776664 20130225

Probable Assignee: LEE ROBERT G

Assignee(s): (std): LEE ROBERT G

Assignee(s): LEE ROBERT G4344 SW CHESAPEAKE AVENUEPORTLANDOR97239US

Inventor(s): (std): LEE ROBERT G

Inventor(s): LEE ROBERT G4344 SW CHESAPEAKE AVENUEPORTLANDOR97239US

Agent(s): BULL HOUSSEY AND TUPPER LLP; REGEHR HERBERT B; HOARTON LLOYD DOUGLAS CHARLES; KLARQUIST SPARKMAN LLP; KLARQUIST SPARKMAN LLP; POLLEY RICHARD J

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 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](#)

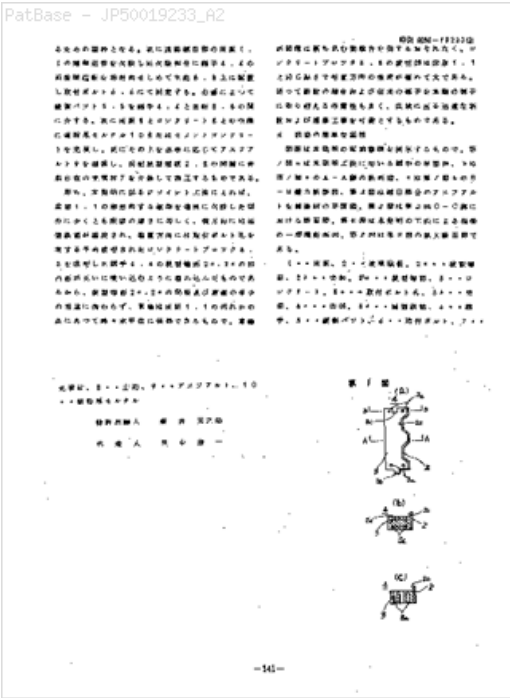
Patent	Date recorded	Event group	Code	Event	Details
CA2846405 AA	20140224	LSPB	+	published / reissued	
CA2846405 AA	20150831	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150821
CA2846405 AA	20180227	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180116
EP2609261 A1	20130703	LSPB	+	published / reissued	
EP2609261 A1	20130703	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130322
EP2609261 A4	20151118	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20151019

EP2609261 A4	20160622	LSWD	-18W	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20160513
EP2609391 A2	20130703	LSPB	+	published / reissued	
EP2609391 A2	20130703	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130322
EP2609391 A2	20160824	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160301
US2013160639 AA	20130627	LSPB	+	published / reissued	
US2013160639 AA	20151028	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7793579 BA	20100914	LSGT	+	granted / extensions (spc, cpc, pte)	
US7793579 BA	20100825	LSGT	PAT1	Patented Case	
US7793579 BA	20100825	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7793579 BA	20140219	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7793579 BA	20140624	LSRE	CC	CERTIFICATE OF CORRECTION	
US7793579 BA	20180313	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7793579 BA	20280805	PEXP		Calculated Patent Term Expiry	
US9187909 BB	20151117	LSGT	+	granted / extensions (spc, cpc, pte)	
US9187909 BB	20151028	LSGT	PAT1	Patented Case	
US9187909 BB	20170606	LSRE	CC	CERTIFICATE OF CORRECTION	
US9187909 BB	20190509	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9187909 BB	20330225	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO12026925 A1	20120301	LSPB	+	published / reissued	
WO12026925 A1	20130225	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12026925 A1	20130322	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010856510 COUNTRY OF REF DOCUMENT : EP
WO12026926 A2	20120301	LSPB	+	published / reissued	
WO12026926 A3	20130225	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO12026926 A3	20130322	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010856511 COUNTRY OF REF DOCUMENT : EP
WO12026926 A3	20140224	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2846405 COUNTRY OF REF DOCUMENT : CA

Title: The i-coated Bayer Bayer diversity chassis facing ?-1 degrees . 6 ? bite into . "7 14" 31 [B i! 7 (a-j)] (Machine translation)

Abstract: Source: JP50019233A **Machine translation:** (2) the claim 1 ([Source: with one (4) application forms present one drawing 1 one sub-proxy (since not required to change will be omitted. (9) (8)) The Japan Patent Office Patent Publication Sho 50 - 52330, JP-a 50.(1975)2.28 Oil (8) (8) Japanese Patent Application No. Sho 47-27235 a (1c+7/108.." filed on power failure, etc. Review page 5 l a (all) specification in the name of the invention highway **expansion joint** 2 of the pre-**joint** construction method claims to the road, the end portion of the **joint** portion of the **floor** plate thickness and the deck of the same height or greater height of the **wave**-shaped end surface and any 2 a, 2a#39; concrete molded by hand 6.3 and the yoke 4 and the end portion of the **joint** of the **floor** plate 2 full-**wave**-shaped end surface 2a-type alpha, characterized in that Seshimeru facing each other in the shake highway **expansion joint** with **joint** construction method. 3,

Classifications:
International (IPC 8-9): E01C11/02 E01D19/06 (Advanced/Invention); E01C11/06 (Advanced/Non-invention); E01C11/02 E01D19/00 (Core/Invention); E01C11/02 (Core/Non-invention)
International (IPC 1-7): E01C11/06 E01D19/06
JP F-Term: 2D051 2D051/AA06 2D051/AF03 2D051/AF12 2D051/AG11 2D051/AH01 2D051/FA15 2D059 2D059/GG45
JP F-Index: E01C11/02/A E01D19/06



Family:

Publication number	Publication date	Application number	Application date
JP50019233 A2	19750228	JP19720089235	19720906
JP51049498 B4	19761227	JP19720089235	19720906
JP873727 C3	19770729	JP19720089235	19720906

Priority:

JP19720089235 19720906

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
JP50019233 A2	19750228	LSPB	+	published / reissued	
JP51049498 B4	19761227	LSPB	+	published / reissued	
JP873727 C3	19770729	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Bituminous finisher

Abstract: The invention relates to a travelling finisher apparatus for laying down a road surfacing layer of a bituminous compound material, comprising a first precompacting and levelling screed carried by a frame, and optionally a second levelling screed connected to a vibratory drive arrangement, whereby a particularly high degree of compaction is achieved so that subsequent roller compaction is not required. This is accomplished by providing a vertically guided compactor bar extending transversely of the direction of travel at the rear of the first screed and being of substantially narrower width than said first levelling plank, said compactor bar being continually in contact with the surface of the precompacted surfacing layer and adapted to be acted on by linear pulsating forces acting between the frame and the compactor bar, and generated by a drive source the reaction forces of which are absorbed by the frame. As the reaction forces are taken up by the frame, it is possible to make use of the mass inertia of the frame and the components associated therewith for generating extraordinarily high force levels at the compactor bar. Together with the narrow contact surface of the compactor bar, this results in very high area unit loads enabling the required high compaction degrees to be achieved. This is also enhanced by tuning the frequency of the compaction force pulses to the natural frequency of the system. The compactor bar and the levelling screed following it may be divided into sections adapted to be angularly adjusted relative to one another for forming roof- or trough-shaped surface profiles.

Classifications:

International (IPC 8-9): E01C19/22 E01C19/40 E01C19/42

E01C19/48 (Advanced/Invention);

E01C19/00 E01C19/22 (Core/Invention)

International (IPC 1-7): E01C19/12 E01C19/22 E01C19/34 E01C19/40

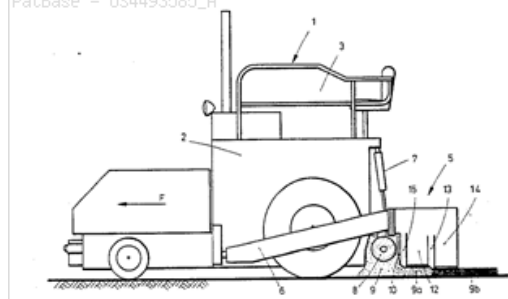
E01C19/42 E01C19/48

CPC: E01C19/407 E01C19/4853 E01C19/4833

European: E01C19/40E E01C19/48C E01C19/48C3

US: 404/102 404/118 404/133 404/133.05 404/96

PatBase - US4493585_A



Family:

Publication number	Publication date	Application number	Application date
CA1189373 A1	19850625	CA19820399809	19820330
CH655966 A	19860530	CH19820001890	19820326
DD202324 A5	19830907	DD19820238761	19820405
DE3114049 A1	19821014	DE19813114049	19810407
DE3114049 C2	19840202	DE19813114049	19810407
DE3114049 C3	19880616	DE19813114049	19810407
DE3209988 A1	19831006	DE19823209988	19820318
DE3209988 C2	19900215		00000000
DE3209989 A1	19830929	DE19823209989	19820318
DE3209989 C2	19930225	DE19823209989	19820318
DK148582 A	19821008	DK19820001485	19820401
DK150906 B	19870713	DK19820001485	19820401
DK150906 C	19871228	DK19820001485	19820401
GB2100324 A1	19821222	GB19820009357	19820330
GB2100324 B2	19850403	GB19820009357	19820330
HR950248 B1	19960630	HR19950000248	19950424
IT1190763 A	19880224	IT19820020630	19820407
IT8220630 A0	19820407	IT19820020630	19820407
JP1496294 C3	19890516	JP19820057177	19820406
JP58011204 A2	19830122	JP19820057177	19820406
JP63043524 B4	19880831	JP19820057177	19820406
SI8210758 A8	19950630	SI19820010758	19820406
SU1407406 A3	19880630	SU19823418800	19820406
US4493585 A	19850115	US19820366004	19820406
YU45109 B	19920310	YU19820000758	19820406
YU75882 A	19861031	YU19820000758	19820406

Priority:

DE19813114049 19810407 DE19823209989 19820318 DE19823209988 19820318
CA19820399809 19820330 YU19820000758 19820406

Probable Assignee: VOEGELE J AG

Assignee(s): (std): JOSEPH VOEGELE MANNHEIM AG ; VOEGELE J AG ; VOGELE JOSEPH A G ; VOEGELE AG J ; YOZEFU
FUOGERE AG

Assignee(s): VOEGELE AG JOSEPH ; VOGELE JOSEPH AG ; VOEGELE JOSEPH AG ; JOSEPH VOGELE AG ; AXER HEINRICH
; BITUMINOUS FINISHER JOSEPH VOGELE AG ; JOSEPH VOEGELE AG ; JOSEPH VOEGELE AG 6800
MANNHEIM DE ; JOSEPH VOEGELE AG MANNHEIM DE

Inventor(s): (std): HAINRITSUHI AKUSERU ; AXER HEINRICH ; AKSER KHAJNRIKH ; AXER H

Inventor(s): HEINRICH AXER ; AXER HEINRICH DE ; VERZICHT DES ERFINDERS AUF NENNUNG ; KHAJNRIKH AKSER DE

Agent(s): GOWLING LAFLEUR HENDERSON LLP

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CH655966 A	19860530	LSGT	+	granted / extensions (spc, cpc, pte)	
CH655966 A	20020430	LSLE	-PL	PATENT CEASED	
CH655966 A	20020326	PEXP		Calculated Patent Term Expiry	
DD202324 A5	19830907	LSGT	+	granted / extensions (spc, cpc, pte)	
DD202324 A5	20000405	PEXP		Calculated Patent Term Expiry	
DE3114049 A1	19821014	LSPB	+	published / reissued	
DE3114049 A1	19821014	LSSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE3114049 C2	19840202	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3114049 C2	19840202	LSGT	+D2	GRANT AFTER EXAMINATION	
DE3114049 C2	19840705	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE3114049 C2	19880324	LSOP	+8366	RESTRICTED MAINTAINED AFTER OPPOSITION PROCEEDINGS	
DE3114049 C3	19880616	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3114049 C3	19880616	LSRE	+D4	PATENT MAINTAINED RESTRICTED	
DE3209988 A1	19831006	LSPB	+	published / reissued	
DE3209988 A1	19880428	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE3209988 A1	19900215	LSGT	+D2	GRANT AFTER EXAMINATION	
DE3209988 A1	19900809	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3209988 C2	19900215	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3209989 A1	19830929	LSPB	+	published / reissued	
DE3209989 A1	19880428	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE3209989 A1	19930225	LSGT	+D2	GRANT AFTER EXAMINATION	
DE3209989 A1	19930812	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE3209989 A1	19960905	LSGT	+8365	FULLY VALID AFTER OPPOSITION PROCEEDINGS	
DE3209989 C2	19930225	LSGT	+	granted / extensions (spc, cpc, pte)	
DK148582 A	19821008	LSPB	+	published / reissued	
DK150906 B	19870713	LSPB	+	published / reissued	
DK150906 C	19871228	LSGT	+	granted / extensions (spc, cpc, pte)	
DK150906 C	19950626	LSLE	-PBP	PATENT LAPSED	
DK150906 C	20020729	LSLE	-PUP	PATENT EXPIRED	
DK150906 C	20020401	PEXP		Calculated Patent Term Expiry	
GB2100324 A1	19821222	LSPB	+	published / reissued	
GB2100324 A1	19850403	LSGT	+PG	PATENT GRANTED	
GB2100324 B2	19850403	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2100324 B2	20020330	PEXP		Calculated Patent Term Expiry	

HR950248 B1	19960630	LSGT	+	granted / extensions (spc, cpc, pte)	
IT1190763 A	19880224	LSGT	+	granted / extensions (spc, cpc, pte)	
IT1190763 A	19991027	LSFE	TA	FEE PAYMENT DATE (SITUATION AS OF EVENT DATE), DATA COLLECTED SINCE 19931001	EFFECTIVE DATE : 19970423
IT1190763 A	20020407	PEXP		Calculated Patent Term Expiry	
JP1496294 C3	19890516	LSGT	+	granted / extensions (spc, cpc, pte)	
JP58011204 A2	19830122	LSPB	+	published / reissued	
JP63043524 B4	19880831	LSPB	+	published / reissued	
SU1407406 A3	19880630	LSGT	+	granted / extensions (spc, cpc, pte)	
US4493585 A	19850115	LSGT	+	granted / extensions (spc, cpc, pte)	
US4493585 A	19841009	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BITUMINOUS FINISHER JOSEPH VOGELE AG NECKARAUE ST OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:AXER, HEINRICH; REEL/FRAME:004308/0418 EFFECTIVE DATE : 19820503
US4493585 A	19841116	LSGT	PAT1	Patented Case	
US4493585 A	19841116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4493585 A	19880701	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4493585 A	19920611	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4493585 A	19960712	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
YU45109 B	19920310	LSPB	+	published / reissued	
YU75882 A	19861031	LSPB	+	published / reissued	

Title: FLAECHENBALKEN ALS VERBUNDBELAG

Abstract: **Floor** covering with longitudinal axis symmetry in the form of a head/body covering comprises a square or rectangular body part (2a, 2b) connected to an octagonal head part (1a, 1b). This arrangement is repeated at least twice. The length of the longer sides of the octagon corresponds to the length of the body part and the angle between the transition of each head part into the body part and vice versa corresponds to the angle between the long and short sides of the octagon. The stone is equipped with upper and lower reinforcements. Preferred Features: The overall size of the **floor** covering is at least about 100 cm long and 30 cm wide. The stone tapers conically downward. The surface is slightly rough.

Classifications:

International (IPC 8-9): E01C5/00 E01C5/06 E01C5/10

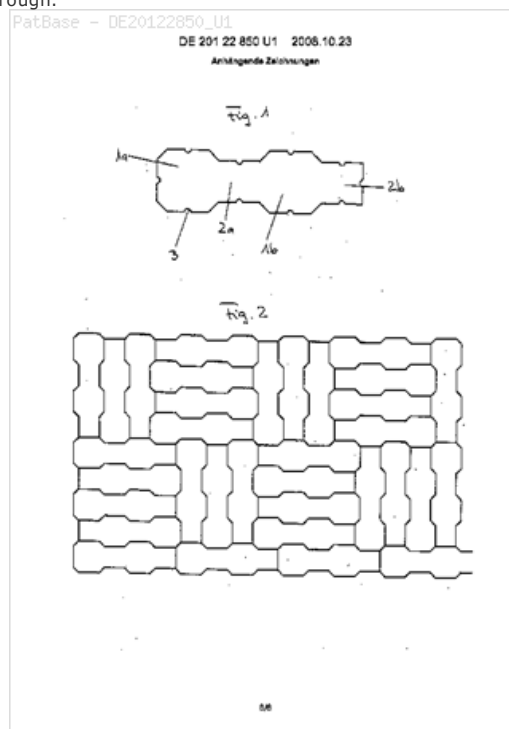
E01C9/08 (Advanced/Invention);

E01C5/00 E01C5/06 E01C9/00 (Core/Invention)

International (IPC 1-7): E01C5/06

CPC: E01C5/10 E01C9/086

European: E01C5/10 E01C9/08C



Family:

Publication number	Publication date	Application number	Application date
DE10106628 A1	20020822	DE20011006628	20010213
DE10106628 B4	20101104	DE20011006628	20010213
DE20122850 U1	20081023	DE20012022850U	20010213

Priority:

DE20011006628 20010213 DE20012022850U 20010213

Probable Assignee: KMT CONSULT GMBH

Assignee(s): (std): KMT CONSULT GMBH ; KMT INGENIEURGMBH

Assignee(s): KMT INGENIEURGESELLSCHAFT MBH

Inventor(s): (std): EBERT RAINER ; KUESTER DETLEF ; MADANOGLU TUNC

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE10106628 A1	20020822	LSPB	+	published / reissued	
DE10106628 A1	20051229	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	PARTYTYPE : OWNER OWNER : KMT INGENIEURGESELLSCHAFT MBH, 22335 HAMBURG, DE
DE10106628 A1	20080508	LSLE	-8141	DISPOSAL/NO REQUEST FOR EXAMINATION	
DE10106628 A1	20081009	LSSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE10106628 A1	20081009	LSRE	+8170	REINSTATEMENT OF THE FORMER POSITION	
DE10106628 B4	20101104	LSGT	+	granted / extensions (spc, cpc, pte)	

DE10106628 B4	20110505	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE10106628 B4	20110505	LSGT	+R020	PATENT GRANT NOW FINAL	EFFECTIVE DATE : 20110204
DE10106628 B4	20121213	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20120901
DE10106628 B4	20210213	PEXP		Calculated Patent Term Expiry	
DE20122850 U1	20081023	LSGT	+	granted / extensions (spc, cpc, pte)	
DE20122850 U1	20081023	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20081023
DE20122850 U1	20081127	LSGT	+R151	UTILITY MODEL MAINTAINED AFTER PAYMENT OF SECOND MAINTENANCE FEE AFTER SIX YEARS	EFFECTIVE DATE : 20080918
DE20122850 U1	20090402	LSGT	+R152	UTILITY MODEL MAINTAINED AFTER PAYMENT OF THIRD MAINTENANCE FEE AFTER EIGHT YEARS	EFFECTIVE DATE : 20090126
DE20122850 U1	20110228	LSLE	-R071	EXPIRY OF RIGHT	
DE20122850 U1	20110213	PEXP		Calculated Patent Term Expiry	

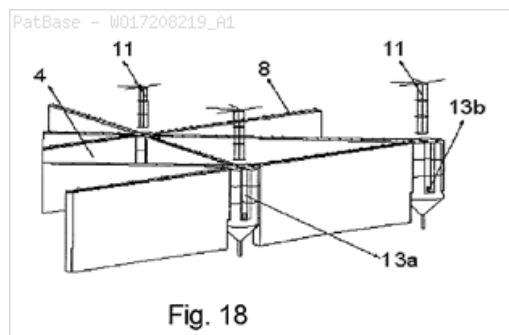
Title: IMPROVED JALLA TECHNOLOGY SPIDER NET CONSTRUCTION INFRASTRUCTURE AND THE METHOD THEREOF

Abstract: An improved construction of spider net by using a node precast using a pin and the method thereof, comprising: an array of rib made of reinforced concrete or steel plate in stainless or steel plate corrugated horizontal anti-rust, or made of plastic, resin, fiberglass, mixed waste, and others that make up the giant box with the outer edge is the edge of the building, in which is divided into spaces smaller and always shaped triangles; a triangular space in the form of a wall or rib of reinforced concrete flat and high, a column points is the center rib of the rib construction, rib settlement, and divider rib; a space between the rib stuffed which can be filled with scaffolding poles from wood, bamboo or piling minipile and above filled material filler mixed with additives; an upper closed in the form of reinforced concrete slab which is fused with ribs/ribs/panel; characterized in the column points is the focal point of the rib rib construction, settlement rib and divider rib, where the rib's panel made from pre fabrication techniques these connections also use node pre fabrication that uses a pin and a hole for the connection between rib's, so constructed as to form spaces triangle to improve the stability of the construction thereon to be made as safe as possible from the deflection or reduction/settlement of construction building thereon.

Classifications:

International (IPC 8-9): E01C3/00 E01C5/00 E02D27/30 E04B1/19 E04B1/21 E04B5/43 (Advanced/Invention)

CPC: E04B1/21 E01C3/006 E01C3/04 E04B1/1909 E04B5/43 E02D27/30

**Family:**

Publication number	Publication date	Application number	Application date
ID201711787 A	20171020	ID2016P0003717	20160601
WO17208219 A1	20171207	WO2017ID00001	20170110

Priority:

ID2016P0003717 20160601

Probable Assignee: SUYANTO H M KRIS

Assignee(s): (std): SUYANTO H M KRIS

Assignee(s): DRS H M KRIS SUYANTO ; SUYANTO H

Inventor(s): (std): SUYANTO H M KRIS

Inventor(s): SUYANTO H ; DRS H M KRIS SUYANTO

Agent(s):

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 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
ID201711787 A	20171020	LSPB	+	published / reissued	
WO17208219 A1	20171207	LSPB	+	published / reissued	
WO17208219 A1	20181204	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	REF COUNTRY CODE : DE
WO17208219 A1	20190626	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 17706318 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: CONCRETE COMPACTING AND MOULDING MACHINE - HAS TUNNEL SHAPED MOULDING MEMBER WITH CLOSED TOP AND SIDES AND OPEN AT BOTTOM

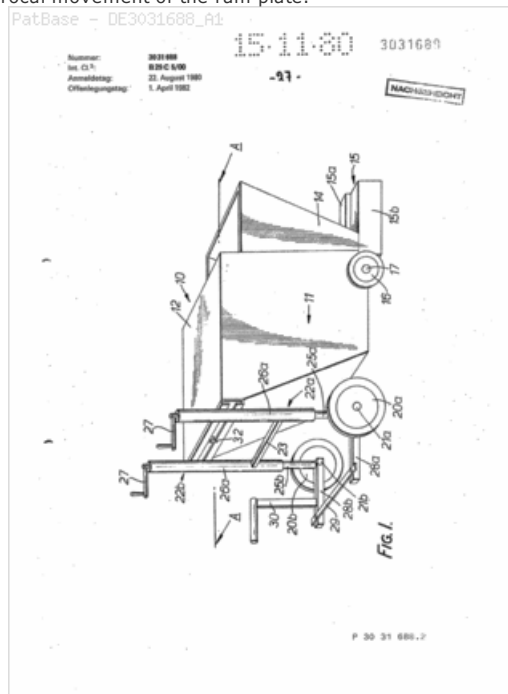
Abstract: The moulding member is attached to a body section and there is an opening in the top of the moulding member adjacent to the body section. A hopper is adapted to carry concrete mix or other plastics materials, and feed the mix or materials to the opening, the hopper being attached to the body structure. A vertical ram plate is used. It has a shape which corresponds to the cross-sectional shape of the moulding member, the ram plate being located within the moulding member and being adapted to move reciprocally from a first position adjacent to the body structure to a second position wholly within the moulding member, without oscillation of the ram plate. Actuators on the body cause the reciprocal movement of the ram plate.

Classifications:

International (IPC 8-9): E01C19/48 (Advanced/Invention);
E01C19/00 (Core/Invention)

International (IPC 1-7): B28B5/00 B29C5/00 E01C19/50
CPC: E01C19/4893

European: E01C19/48H5



Family:

Publication number	Publication date	Application number	Application date
DE3031688 A1	19820401	DE19803031688	19800822

Priority:

DE19803031688 19800822

Probable Assignee:

EGGLETON RICHARD CLIVE

Assignee(s): (std):

EGGLETON RICHARD CLIVE

Inventor(s): (std):

EGGLETON RICHARD CLIVE

Inventor(s):

CLIVE EGGLETON RICHARD

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE3031688 A1	19820401	LSPB	+	published / reissued	
DE3031688 A1	19860807	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	

Title: ARRIS PROTECTION **JOINT**

Abstract: The **joint** comprises a pair (12, 14) of complementary engineering grade polymer injection mouldings. Each moulding is comprised of generally equal length oblique webs (15), set at 60 degrees to a mid-plane (16) of the assembled **joint**, shorter, inner webs (17) and a longer, outer webs (18). Centrally of each outer web (18) is an aperture (21) and centrally of each inner web is a pin (22) with a step (23) and a pointed head (24). The heads of one moulding clip into the apertures of the other whilst the steps determine their separation gap (25). The trapezium **wave** shape of the **joint** provides re-entrants (31) from the plane of the outer webs (18) towards that of the inner webs. Outwards of the re-entrants extend anchoring formations (33). Behind each re-entrant these formations are joined by a tab (34).

Classifications:

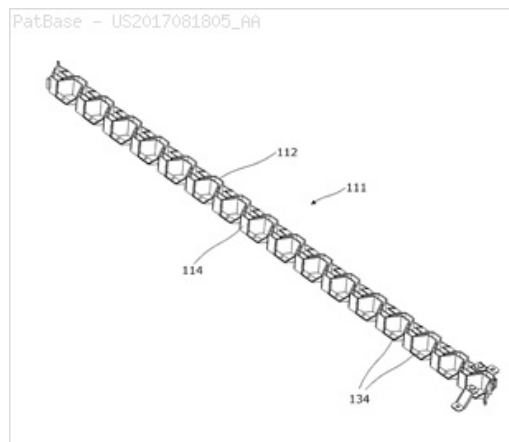
International (IPC 8-9): E01C E01C11/04 E01C11/10 E01C11/14

E04B1/682 E04B5/32 E04F15/14 E04G23/02 (Advanced/Invention)

CPC: E01C11/04 E01C11/10 E04F15/14 E01C11/106 E01C11/14

E04G23/0288 E04B5/32

US: 1/1 52/396.02



Family:

Publication number	Publication date	Application number	Application date
AU2015261237 AA	20161208	AU20150261237	20150511
AU2015261237 BB	20190516	AU20150261237	20150511
DE602015025366 D1	20190321	DE201560025366T	20150511
EP3143206 A1	20170322	EP20150730524	20150511
EP3143206 B1	20190227	EP20150730524	20150511
ES2729418 T3	20191104	ES20150730524T	20150511
GB201408398 A0	20140625	GB20140008398	20140512
GB201503059 A0	20150408	GB20150003059	20150224
GB201507960 A0	20150624	GB20150007960	20150511
GB2526693 A1	20151202	GB20150007960	20150511
MX2016014700 A1	20170223	MX20160014700	20150511
NZ725849 A	20181221	NZ20150725849	20150511
PT3143206 T	20190606	PT20150730524T	20150511
US2017081805 AA	20170323	US20150310658	20150511
US10094075 BB	20181009	US20150310658	20150511
WO15173549 A1	20151119	WO2015GB51373	20150511
ZA201608105 A	20180328	ZA20160008105	20161123

Priority:

GB20140008398 20140512 GB20150003059 20150224 EP20150730524 20150511
WO2015GB51373 20150511

Probable Assignee: PERMABAN LTD

Assignee(s): (std): PERMABAN LTD ; RCR FLOORING PRODUCTS LTD

Assignee(s): RCR FLOORING PRODUCTS IVYBRIDGE LTD

Inventor(s): (std): ANDREW KEEN ; KEEN ANDREW

Inventor(s): KEEN ANDREW IVYBRIDGE

Agent(s): IP GATEWAY PATENT AND TRADE MARK ATTORNEYS PTY LTD; PATENTANWAELTE BUSCHHOFF HENNICKE ALTHAUS; BROOKS NIGEL SAMUEL; BAY STATE IP LLC; NIGEL BROOKS CPA

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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU2015261237 AA	20161208	LSPB	+	published / reissued	
AU2015261237 BB	20190516	LSGT	+	granted / extensions (spc, cpc, pte)	

AU2015261237 BB	20190912	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2015261237 BB	20350511	PEXP		Calculated Patent Term Expiry	
EP3143206 A1	20170322	LSPB	+	published / reissued	
EP3143206 A1	20170322	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20161102
EP3143206 A1	20170419	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : RCR FLOORING PRODUCTS LIMITED
EP3143206 A1	20180214	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20180116
EP3143206 A1	20181017	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180921
EP3143206 B1	20190227	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3143206 B1	20190227	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP3143206 B1	20190228	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3143206 B1	20190315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1101518 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190315
EP3143206 B1	20190320	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP3143206 B1	20190321	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602015025366 COUNTRY OF REF DOCUMENT : DE
EP3143206 B1	20190710	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP3143206 B1	20190731	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 : 20190227
EP3143206 B1	20190731	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 : 20190227
EP3143206 B1	20190731	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 : 20190527
EP3143206 B1	20190731	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 : 20190227
EP3143206 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT : PT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20190524 YEAR OF FEE PAYMENT : 5
EP3143206 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190516 YEAR OF FEE PAYMENT : 5
EP3143206 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190529 YEAR OF FEE PAYMENT : 5
EP3143206 B1	20190830	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 : 20190627
EP3143206 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 : 20190527
EP3143206 B1	20190830	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 : 20190227
EP3143206 B1	20190830	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 : 20190227
EP3143206 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20190227
EP3143206 B1	20190830	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 : 20190227
EP3143206 B1	20190830	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 : 20190528
EP3143206 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190514 YEAR OF FEE PAYMENT : 5
EP3143206 B1	20190915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1101518

					COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190227
EP3143206 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20190510 YEAR OF FEE PAYMENT : 5
EP3143206 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190513 YEAR OF FEE PAYMENT : 5
EP3143206 B1	20191104	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2729418 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20191104
EP3143206 B1	20191128	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602015025366 COUNTRY OF REF DOCUMENT : DE
EP3143206 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONNOFLAPSE : LAPSE

				[ANNOUNCED VIA 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 : 20190227
EP3143206 B1	20191230	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP3143206 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190531
EP3143206 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190531
EP3143206 B1	20200205	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20191128
EP3143206 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190511
EP3143206 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP3143206 B1	20200501	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190511
EP3143206 B1	20350511	PEXP		Calculated Patent Term Expiry	
ES2729418 T3	20191104	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2729418 T3	20350511	PEXP		Calculated Patent Term Expiry	
GB201408398 A0	20151104	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	

GB201503059 A0	20160824	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB2526693 A1	20151202	LSPB	+	published / reissued	
GB2526693 A1	20200429	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
MX2016014700 A1	20170223	LSPB	+	published / reissued	
NZ725849 A	20181221	LSPB	+	published / reissued	
NZ725849 A	20180831	LSRE	S35A	APPLICATION FOR PROCEEDINGS UNDER SECTION 35 (RESTORATION OF LAPSED PATENTS)	
NZ725849 A	20181130	LSRE	+S35R	PROCEEDINGS UNDER SECTION 35 (RESTORATION OF LAPSED PATENTS): PATENT RESTORED	
NZ725849 A	20190329	LSGT	+PSEA	PATENT SEALED	
NZ725849 A	20190426	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 11 MAY 2020 BY TORIA TURNER EFFECTIVE DATE : 20190424
PT3143206 T	20190606	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3143206 T	20350511	PEXP		Calculated Patent Term Expiry	
US10094075 BB	20181009	LSGT	+	granted / extensions (spc, cpc, pte)	
US10094075 BB	20180919	LSGT	PAT1	Patented Case	
US10094075 BB	20350511	PEXP		Calculated Patent Term Expiry	
US2017081805 AA	20170323	LSPB	+	published / reissued	
US2017081805 AA	20170518	LSSES	NFA1	Non Final Action Mailed	
US2017081805 AA	20170922	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PERMABAN LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KEEN, ANDREW; REEL/FRAME:043661/0251 EFFECTIVE DATE : 20161104
US2017081805 AA	20180612	LSSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2017081805 AA	20180612	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017081805 AA	20180919	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO15173549 A1	20151119	LSPB	+	published / reissued	
WO15173549 A1	20161102	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2015730524 COUNTRY OF REF DOCUMENT : EP
WO15173549 A1	20161109	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2016/014700 COUNTRY OF REF DOCUMENT : MX
WO15173549 A1	20161111	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 15310658 COUNTRY OF REF DOCUMENT : US
WO15173549 A1	20161114	LSNE	NENP	NON-ENTRY INTO THE	REF COUNTRY CODE : DE

WO15173549 A1	20161208	LSNP	ENP	NATIONAL PHASE ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : 2015261237 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20150511 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
ZA201608105 A	20180328	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201608105 A	20361122	PEXP		Calculated Patent Term Expiry	

Title: INTERLOCKING MODULAR **FLOORING** ASSEMBLY WITH BEVELLED CONNECTORS

Abstract: A modular **flooring** assembly for heavy-duty applications is presented. It is made of a plurality of interlockable mat units, each mat having a plurality of edges with at least one edge having a connector in the plane of the mat unit. Each connector is made of a plurality of alternating teeth and grooves respectively adapted to engage the grooves and the teeth of another mat unit. Each groove has a first bevel with respect to the plane extending along its back wall and a rear portion of its corresponding side walls. Each tooth has a second bevel with respect to the plane extending along its front wall and a front portion of its corresponding side walls. The first and the second bevels are complementary and each side wall form a twist transition between the first and second bevels.

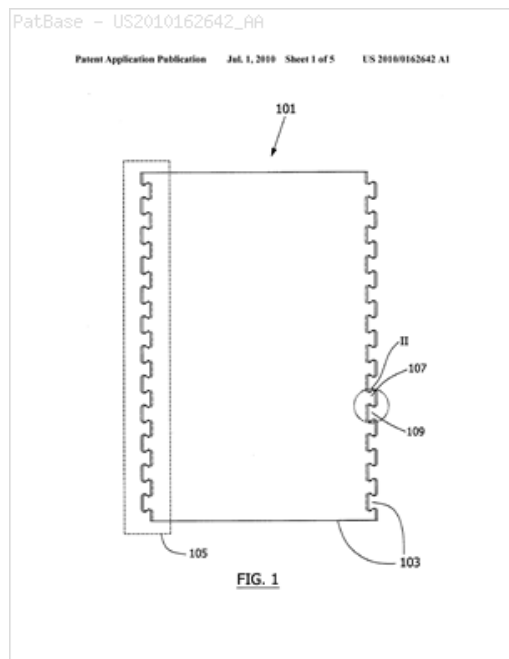
Classifications:

International (IPC 8-9): A01K1/015 E01C5/20 E04B5/00 E04C2/40 E04F15/10 E04F15/22 (Advanced/Invention); E01C5/20 (Advanced/Non-invention); A01K1/015 E04B5/00 E04C2/40 E04F15/10 E04F15/22 (Core/Invention); E01C5/00 (Core/Non-invention)

CPC: E04F15/02172 A01K1/0157 E01C5/20 E04F15/10 E04F2201/091 E04F2201/095

European: A01K1/015C E01C5/20 E04F15/10 P04F201/09A P04F201/09C

US: 52/177 52/177P 52/588.1 52/588.100S



Family:

Publication number	Publication date	Application number	Application date
CA2688930 AA	20100622	CA20092688930	20091221
DE602009015387 D1	20130627	DE200960015387T	20091222
EP2199465 A2	20100623	EP20090180319	20091222
EP2199465 A3	20120411	EP20090180319	20091222
EP2199465 B1	20130501	EP20090180319	20091222
US2010162642 AA	20100701	US20090645171	20091222

Priority:

US20080139815P 20081222 EP20090180319 20091222 US20090645171 20091222

Probable Assignee: ANI MAT INC

Assignee(s): (std): ALLARD ANGE ALBERT ; ANI MAT INC ; LAMONTAGNE DAVID ; TREMBLAY FREDERIC ; SAVARY PIERRE

Assignee(s): ANI MAT INC SHERBROOKE

Inventor(s): (std): ALLARD ANGE ALBERT ; TREMBLAY FREDERIC ; LAMONTAGNE DAVID ; SAVARY PIERRE

Agent(s): MICHALSKI HUETTERMANN AND PARTNER PATENTANWALTE MBB; MICHALSKI HUETTERMANN AND PARTNER PATENTANWALTE; MICHALSKI HUETTERMANN AND PARTNER; MICHALSKI HUETTERMANN AND PARTNER PATENTANWALTE; MCDERMOTT WILL AND EMERY LLP

Designated states: AT 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 SE SI SK SM TR

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CA2688930 AA	20100622	LSPB	+	published / reissued	
CA2688930 AA	20141211	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20141202
CA2688930 AA	20170718	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20170606
EP2199465 A2	20100623	LSPB	+	published / reissued	
EP2199465 A2	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2199465 A2	20131129	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 : 20130501
EP2199465 A2	20131129	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 : 20130501
EP2199465 A2	20131129	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 : 20130802
EP2199465 A2	20140228	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 : 20130501
EP2199465 A2	20140228	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 : 20130501
EP2199465 A2	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151224 YEAR OF FEE PAYMENT : 7
EP2199465 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151228 YEAR OF FEE PAYMENT : 7
EP2199465 A3	20121114	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20121001
EP2199465 B1	20130501	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2199465 B1	20130501	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2199465 B1	20130515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2199465 B1	20130515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 610034 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130515
EP2199465 B1	20130522	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2199465 B1	20130627	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602009015387 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130627
EP2199465 B1	20130915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 610034 COUNTRY OF REF DOCUMENT : AT

					KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130501
EP2199465 B1	20131023	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20130501
EP2199465 B1	20131025	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2199465 B1	20131031	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 : 20130501
EP2199465 B1	20131031	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 : 20130901
EP2199465 B1	20131031	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 : 20130501
EP2199465 B1	20131031	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 : 20130902
EP2199465 B1	20131031	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 : 20130501
EP2199465 B1	20131031	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 : 20130812
EP2199465 B1	20131031	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 : 20130801
EP2199465 B1	20131031	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 : 20130501
EP2199465 B1	20131031	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 : 20130501
EP2199465 B1	20131031	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

				EPO]	LAPSED DATE : 20130802
EP2199465 B1	20131129	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 : 20130501
EP2199465 B1	20131129	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 : 20130801
EP2199465 B1	20131129	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 : 20130501
EP2199465 B1	20131129	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 : 20130501
EP2199465 B1	20131231	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 : 20130501
EP2199465 B1	20140131	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 : 20130501
EP2199465 B1	20140131	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 : 20130501
EP2199465 B1	20140131	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 : 20130501
EP2199465 B1	20140131	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 : 20130501
EP2199465 B1	20140131	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 : 20130501
EP2199465 B1	20140228	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 : 20130501

EP2199465 B1	20140228	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 : 20130501
EP2199465 B1	20140228	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 : 20130501
EP2199465 B1	20140409	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20140204
EP2199465 B1	20140515	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602009015387 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140204
EP2199465 B1	20140731	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2199465 B1	20140827	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20131222
EP2199465 B1	20140829	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 : 20131222
EP2199465 B1	20140829	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 : 20130501
EP2199465 B1	20140924	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2199465 B1	20141031	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 : 20131231
EP2199465 B1	20141031	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 : 20131222
EP2199465 B1	20141031	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 : 20131231
EP2199465 B1	20141128	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 : 20131222
EP2199465 B1	20150529	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 : 20130501

EP2199465 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2199465 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : 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 : 20091222
EP2199465 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2199465 B1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2199465 B1	20151224	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
EP2199465 B1	20161229	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 : 8
EP2199465 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161229 YEAR OF FEE PAYMENT : 8
EP2199465 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161228 YEAR OF FEE PAYMENT : 8
EP2199465 B1	20180220	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2199465 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171227 YEAR OF FEE PAYMENT : 9
EP2199465 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180220 YEAR OF FEE PAYMENT : 9
EP2199465 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181228 YEAR OF FEE PAYMENT : 10
EP2199465 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181231 YEAR OF FEE PAYMENT : 10
EP2199465 B1	20291222	PEXP		Calculated Patent Term Expiry	
US2010162642 AA	20100701	LSPB	+	published / reissued	
US2010162642 AA	20100308	LSAS	AS	ASSIGNMENT	PARTY TYPE : OWNER OWNER : ANI-MAT INC., CANADA OLD PARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: ALLARD, ANGE ALBERT; SAVARY, PIERRE; TREMBLAY,

US2010162642 AA	20130422	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action
-----------------	----------	------	-------	---