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Title: DOUBLE-HULL ORE CARRYING VESSEL CONVERSION FROM SINGLE-HULL OIL TANKER AND METHOD OF PERFORMING THE SAME

Abstract: A method for converting a single-hull vessel to a double hull vessel, and the converted double hull vessel, is disclosed. The single hull vessel to be converted has an outer hull surrounding a center cargo tank flanked by a port wing tank and a starboard wing tank, with spaced-apart transverse bulkheads extending between the port and starboard wing tanks to form one or more central tanks. An elevated floor is added to the central cargo tanks by installing new bottom plating spanning the transverse bulkheads and the sidewalls of the wing tanks. Support members are added to increase the strength of the elevated floor, the cargo tank, and the wing tanks, as needed. A sealed compartment is formed by the new elevated floor, the outer hull, and the sidewalls and bulkheads to protect the cargo from leaking out of the vessel should the integrity of the single hull be breached. The method achieves conversion of the single hull vessel to a double hull construction without breaching the integrity of the pre-existing single outer hull, and thus is faster and easier in converting single hull vessels to minimize cost of conversion and vessel outage.

Classifications:

International (IPC 8-9): B63B25/08 B63B3/20 B63B3/62

B63B9/04 (Advanced/Invention);

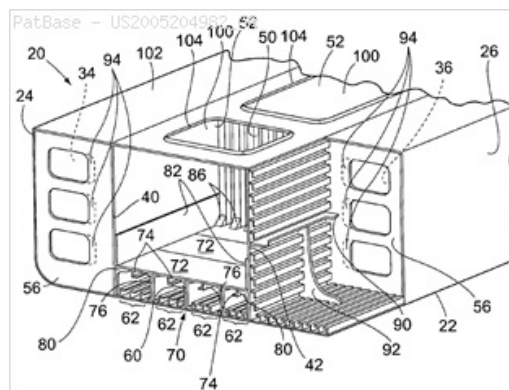
B63B25/00 B63B3/00 B63B9/00 (Core/Invention)

International (IPC 1-7): B63B25/08 B63B3/20 B63B3/62 B63B9/04

CPC: B63B3/20 B63B9/04

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US: 114/65R 114/74A



Family:

Publication number	Publication date	Application number	Application date
AT420814 E	20090115	AT20040751880T	20040511
AU2004318006 AA	20051013	AU20040318006	20040511
AU2004318006 AB	20061109	AU20040318006	20040511
AU2004318006 BB	20081218	AU20040318006	20040511
CN100366504 C	20080206	CN200410056593	20040811
CN1590213 A	20050309	CN200410056593	20040811
CY1108987 T1	20140702	CY20091100403T	20090407
DE602004019148 D1	20090305	DE200460019148T	20040511
EP1725445 A1	20061129	EP20040751880	20040511
EP1725445 B1	20090114	EP20040751880	20040511
US2005204982 AA	20050922	US20040803816	20040318
US7077071 BB	20060718	US20040803816	20040318
VN6646 A1	20071126	VN20040001142	20040511
WO05095196 A1	20051013	WO2004US14711	20040511

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT420814 E	20090115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT420814 E	20090715	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT420814 E	20240511	PEXP		Calculated Patent Term Expiry	
AU2004318006 AA	20051013	LSPB	+	published / reissued	
AU2004318006 AA	20061109	LSRE	DA3	AMENDMENTS MADE	TEXT : THE NATURE OF THE

				SECTION 104	AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 11 OCT 2006
AU2004318006 BB	20081218	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2004318006 BB	20090423	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2004318006 BB	20181206	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2004318006 BB	20240511	PEXP		Calculated Patent Term Expiry	
CN100366504 C	20080206	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100366504 C	20080206	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100366504 C	20080206	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN100366504 C	20080528	LSLI	EE01	专利实施许可合同备案的生效 (Enforcement of record for patent exploitation license contracts)	TEXT : 专利实施许可合同的备案 (ANY PATENT LICENSE CONTRACT FOR EXPLOITATION SUBMITTED FOR RECORD) CONTRACT RECORD NUMBER : 2008990000069 LICENSOR : 统一矿业国际有限公司 (A UNIFIED INTERNATIONAL MINING CO., LTD.) LICENSEE : 统一矿业运输XXX有限公司 (UNIFIED MINING TRANSPORTATION XXX CO., LTD.) LICENSE TYPE : 分许可 (SUB-LICENSE) RECORD DATE : 2008.4.11
CN100366504 C	20080528	LSLI	EE01	专利实施许可合同备案的生效 (Enforcement of record for patent exploitation license contracts)	TEXT : 专利实施许可合同的备案 (ANY PATENT LICENSE CONTRACT FOR EXPLOITATION SUBMITTED FOR RECORD) CONTRACT RECORD NUMBER : 2008990000068 LICENSOR : 统一矿业国际有限公司 (A UNIFIED INTERNATIONAL MINING CO., LTD.) LICENSEE : 统一矿业运输XIX有限公司 (UNIFIED MINING TRANSPORTATION XIX CO., LTD.) LICENSE TYPE : 分许可 (SUB-LICENSE) RECORD DATE : 2008.4.11
CN100366504 C	20080528	LSLI	EE01	专利实施许可合同备案的生效 (Enforcement of record for patent exploitation license contracts)	TEXT : 专利实施许可合同的备案 (ANY PATENT LICENSE CONTRACT FOR EXPLOITATION SUBMITTED FOR RECORD) CONTRACT RECORD NUMBER : 2008990000070 LICENSOR : 统一矿业国际有限公司 (A UNIFIED INTERNATIONAL MINING CO., LTD.) LICENSEE : 统一矿业运输XVIII有限公司 (UNIFIED MINING TRANSPORTATION XVIII CO., LTD.) LICENSE TYPE : 分许可 (SUB-LICENSE) RECORD DATE : 2008.4.11
CN100366504 C	20080528	LSLI	EE01	专利实施许可合同备案的生效 (Enforcement of record for patent exploitation license contracts)	TEXT : 专利实施许可合同的备案 (ANY PATENT LICENSE CONTRACT FOR EXPLOITATION SUBMITTED FOR RECORD) CONTRACT RECORD NUMBER : 2008990000067 LICENSOR : 理查德·W·诺伊 (RICHARD · W · NEUSS) LICENSEE : 统一矿业国际有限公司 (A UNIFIED INTERNATIONAL MINING CO., LTD.) LICENSE TYPE : 独占许可 (EXCLUSIVE LICENSE) RECORD DATE : 2008.4.11
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CN100366504 C	20190726	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN100366504 C	20190726	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT : 专利权的终止 (TERMINATION OF PATENT RIGHT) EFFECTIVE DATE : 20180811
CN100366504 C	20240811	PEXP		Calculated Patent Term Expiry	
CN1590213 A	20050309	LSPB	+	published / reissued	
CN1590213 A	20050309	LSPB	+C06	PUBLICATION	
CN1590213 A	20050309	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CY1108987 T1	20140702	LSGT	+	granted / extensions (spc, cpc, pte)	
DE602004019148 D1	20100107	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
EP1725445 A1	20061129	LSPB	+	published / reissued	
EP1725445 A1	20061129	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061010
EP1725445 A1	20070822	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20070720
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EP1725445 B1	20090115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1725445 B1	20090218	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1725445 B1	20090515	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20090400976 COUNTRY OF REF DOCUMENT : GR

EP1725445 B1	20090731	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 : 20090425
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EP1725445 B1	20120731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20120529 YEAR OF FEE PAYMENT : 9
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EP1725445 B1	20120928	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20120514 YEAR OF FEE PAYMENT : 9
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EP1725445 B1	20131130	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : NEU, RICHARD W. EFFECTIVE DATE : 20130531
EP1725445 B1	20131211	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20131201
EP1725445 B1	20131231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130531
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					PREScribed TIME-LIMIT LAPSED DATE : 20130710
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EP1725445 B1	20140228	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 : 20131204
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EP1725445 B1	20140430	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 : 20130511
EP1725445 B1	20140530	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 : 20130531
EP1725445 B1	20150731	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 : 20130511
EP1725445 B1	20240511	PEXP		Calculated Patent Term Expiry	
US2005204982 AA	20050922	LSPB	+	published / reissued	
US7077071 BB	20060718	LSGT	+	granted / extensions (spc, cpc, pte)	

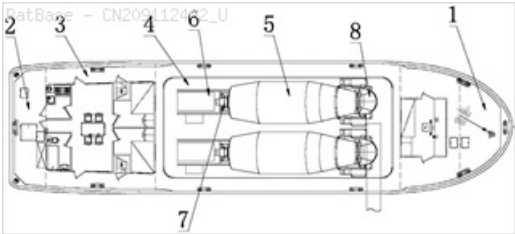
US7077071 BB	20060628	LSGT	PAT1	Patented Case	
US7077071 BB	20090819	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7077071 BB	20140120	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7077071 BB	20180226	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7077071 BB	20180813	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US7077071 BB	20180813	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7077071 BB	20180813	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7077071 BB	20180904	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180718
US7077071 BB	20240318	PEXP		Calculated Patent Term Expiry	
VN6646 A1	20071126	LSPB	+	published / reissued	
WO05095196 A1	20051013	LSPB	+	published / reissued	
WO05095196 A1	20040511	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1200401142 COUNTRY OF REF DOCUMENT : VN
WO05095196 A1	20060919	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO05095196 A1	20060919	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO05095196 A1	20061010	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004751880 COUNTRY OF REF DOCUMENT : EP
WO05095196 A1	20061011	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004318006 COUNTRY OF REF DOCUMENT : AU
WO05095196 A1	20061102	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2004318006 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20040511 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO05095196 A1	20061129	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004751880 COUNTRY OF REF DOCUMENT : EP

Title: A concrete transport stirred vessel (Machine translation)

Abstract: Source: CN209112402U **Machine translation:** The utility model discloses a concrete transport stirred vessels, including the bow, stern cabin cabin, cabin and cargo sharp tip; The **cargo hold** is provided with a left and right stirring means stirring means; The left and right stirring means stirring means includes a stirring tank, the power source and rotating base, two stirred tank boat along the direction arranged in parallel, stirred tank discharge port is provided below the **conveyor belt**; The stirring tank through a rotating base fixedly mounted on the bottom of the cargo; The left stirring device can rotate left, right agitation means can rotate right. The utility model relates to a stirring vessel structure is reasonable, simple operation, the two concrete mixing equipment reasonable setting in the ship, can reduce the bridge engineering cost, ease traffic pressure, but also saves 30% of transportation costs; The utility model with strong market prospects, 1992 hydraulic engineering equipment blank, can bring significant economic and social benefits.

Classifications:

International (IPC 8-9): B28C5/20 B63B35/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN209112402 U	20190716	CN201821822631U	20181106

Priority:

CN201821822631U 20181106

Assignee(s): JIAXING CITY IN BARRIER CONSTRUCTION ENGINEERING CO LTD ; JIAXING CITY IS BUILT PROVIDED ENGINEERING CO LTD ; ZHEJIANG JUHUA ST CONSTRUCTION CO ; JIAXING MILLION RAINBOW CONSTRUCTION ENGINEERING CO LTD

Legal status (INPADOC)

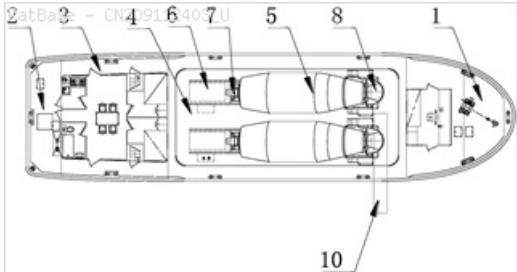
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Patent	Date recorded	Event group	Code	Event	Details
CN209112402 U	20190716	LSGT	+	granted / extensions (spc, cpc, pte)	
CN209112402 U	20190716	LSGT	+GR01	PATENT GRANT	
CN209112402 U	20281106	PEXP		Calculated Patent Term Expiry	

Title: Concrete mixing and transport ship set (Machine translation)

Abstract: Source: CN209112403U **Machine translation:** The utility model discloses a transport ship, including the hull, set of concrete mixing concrete mixing system and concrete conveying belt; At least two of the hull shipsets each with the hull fore peak tank are included, and aft peak tank, cabin and a **cargo hold**; Concrete mixing system is provided in which a boat hull of the **cargo hold**, comprises two stirred tank, stirred tank below each end, respectively, by a shaft connected with the power source, high-end is provided with a feed port and discharge port and the discharge port is located below the mouth of the feed mixing tank discharge port inclined; The discharge port is provided below the **conveyor belt**. The utility model relates to concrete mixing concrete mixing system transport ship group, the **conveyor belt** disposed on one hull, using the stirred mixed soil conveyed to another, so that the hull of the **cargo hold** of the construction site near the concrete transport to the construction site, so that even in a narrow inner river concrete transport, also avoid prolonged transport concrete impact to IQ.

Classifications:
International (IPC 8-9): B28C9/04 B63B27/22
B63B35/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN209112403 U	20190716	CN201821822945U	20181106

Priority:

CN201821822945U 20181106

Assignee(s): JIAXING CITY IN BARRIER CONSTRUCTION ENGINEERING CO LTD ; JIAXING CITY IS BUILT PROVIDED ENGINEERING CO LTD ; ZHEJIANG JUHUA ST CONSTRUCTION CO ; JIAXING MILLION RAINBOW CONSTRUCTION ENGINEERING CO LTD

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN209112403 U	20190716	LSGT	+	granted / extensions (spc, cpc, pte)	
CN209112403 U	20190716	LSGT	+GR01	PATENT GRANT	
CN209112403 U	20281106	PEXP		Calculated Patent Term Expiry	

Title: Auxiliary cabin cargo unloading apparatus for bulk cargo ship

Abstract: Source: TW560502Y

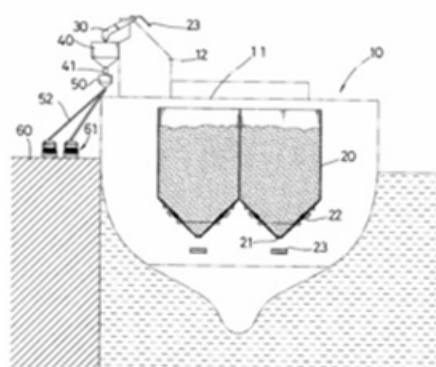
Machine translation: This creation is disperses the mixed freighter about one kind the auxiliary cabin discharging gear, it is Yu Sanza in the freighter deck establishes the localization place, in the localization place establishes falls the material tube, the mother stock tube and several minutes feeds the tube, the establishment may transmit in the cabin disperses **conveyor belt** of the mixed cargo, the **conveyor belt** terminal is located falls the material tube above the entrance, the mother stock tube feeds the tube with several minutes, links up the tube to connect, the engagement crown, the bottom end enters, the exit establishment electricity signal control opens shuts the strobe, divides feeds the tube bottom end exit establishment strobe and the subpackage tube, its may **cargo hold** of in the cabin interiorDisperses the mixed cargo, but the quota transportation to the subpackage ship truck, may achieve directly the enhancement unloads cargo the efficiency and time-saving, reduces effort also the proper attention to both environmental protection the practical effect.

Classifications:

International (IPC 8-9): B63B27/22 B63B27/28 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B63B27/28

PatBase - TW560502_Y



Family:

Publication number	Publication date	Application number	Application date
TW560502 Y	20031101	TW20030204995U	20030331

Priority:

TW20030204995U 20030331

Probable Assignee:

LIN SHIN LIANG

Assignee(s): (std):

LIN SHIN LIANG

Inventor(s): (std):

LIN SHIN LIANG

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
TW560502 Y	20031101	LSGT	+	granted / extensions (spc, cpc, pte)	
TW560502 Y	20040216	LSGT	+GD4K	ISSUE OF PATENT CERTIFICATE FOR GRANTED UTILITY MODEL FILED BEFORE JUNE 30, 2004	
TW560502 Y	20150801	LSLE	-MM4K	ANNULMENT OR LAPSE OF A UTILITY MODEL DUE TO NON-PAYMENT OF FEES	

Title: PROCESS FOR HANDLING CARGO AND CARGO HANDLING FACILITY

Abstract: A process for handling cargo which comprises the step of providing a cargo handling facility having a wharf defining a marine berth of sufficient length to accommodate the docking of a marine vessel in substantially parallel relation to a sidewall of the wharf. A shelter having a roof structure overlying the marine berth and an adjacent portion of the wharf is also provided, with one or more overhead lifting means mounted beneath the roof structure for movement over the marine berth and over the adjacent portion of the wharf in both transverse and parallel directions relative to the sidewall providing for movement of cargo by the overhead lifting means between the marine vessel and one or more exterior transport positions located on the wharf. The one or more exterior transport positions are also preferably located under the roof.

Classifications:

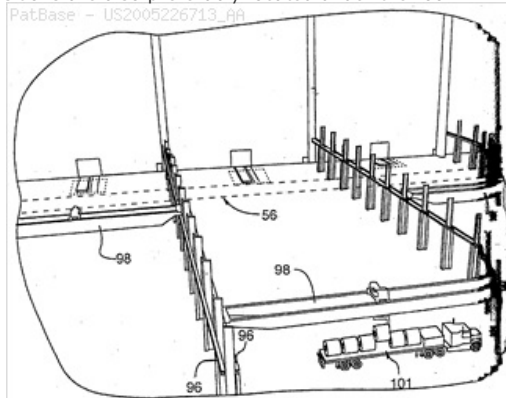
International (IPC 8-9): B65G1/00 B65G63/00 B65G67/20 B65G67/60 B66C17/20 E02B3/20 (Advanced/Invention); B65G63/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/00 B65G1/00 B65G63/00 B65G67/20 B66C17/20 E02B3/20

CPC: B65G63/002 B65G67/603

European: B65G63/00A B65G67/60A

US: 414/803



Family:

Publication number	Publication date	Application number	Application date
CA2444612 AA	20050402	CA20032444612	20031002
US2005226713 AA	20051013	US20040957100	20041001

Priority:

CA20032444612 20031002

Probable Assignee: STEELCARE INC

Assignee(s): (std): STEELCARE INC ; TSAFARIDIS DEMETRIUS

Inventor(s): (std): TSAFARIDIS DEMETRIUS

Agent(s): RIDOUT AND MAYBEE LLP; THOMAS N YOUNG

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2444612 AA	20050402	LSPB	+	published / reissued	
CA2444612 AA	20031002	LSSES	+EEER	EXAMINATION REQUEST	
CA2444612 AA	20081002	LSLE	-FZDE	DEAD	
US2005226713 AA	20051013	LSPB	+	published / reissued	
US2005226713 AA	20050124	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : STEELCARE INCORPORATED, CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TSAFARIDIS, DEMETRIUS; REEL/FRAME:015618/0605 EFFECTIVE DATE : 20041026
US2005226713 AA	20071113	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

Title: EXTENSIBLE RAMP FOR SHIPS

Abstract: (Claim 1) In combination, a ship, a portable cargo ramp for loading and unloading the ship, said different vertical angles, and means for elevating and depressing the outboard end of the ramp.

Classifications:

International (IPC 8-9): B63B27/14 (Advanced/Invention);

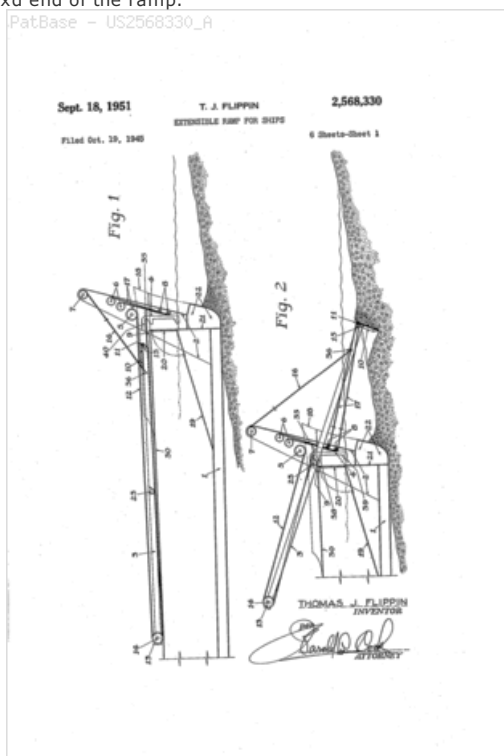
B63B27/00 (Core/Invention)

International (IPC 1-7): B65G69/28

CPC: B63B27/143 B63B35/086 B63B2019/083 B63B2027/141

European: B63B27/14B L63B19/08B L63B27/14A L63B35/08D

US: 114/382 114/44 114/70 14/71.3 440/36



Family:

Publication number	Publication date	Application number	Application date
US2568330 A	19510918	US19450623356	19451019

Priority:

US19450623356 19451019

Probable Assignee:

FLIPPIN THOMAS J

Assignee(s): (std):

FLIPPIN THOMAS J

Inventor(s): (std):

FLIPPIN THOMAS J

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2568330 A	19510918	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: SELF-UNLOADING BULK CARGO TRANSPORT SHIP AND UNLOADING METHOD THEREOF

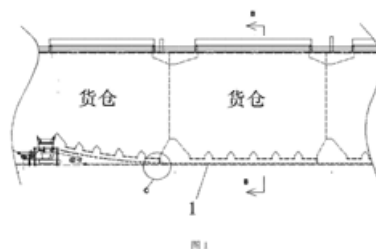
Abstract: The invention relates to a self-unloading bulk cargo transport ship. The self-unloading bulk cargo transport ship comprises a plurality of marine cranes which are arranged above a deck, and a **cargo hold** grab bucket is arranged at the end of each of the marine cranes; deck hoppers which are in one-to-one correspondence to the marine cranes are arranged on the deck of a ship body and positioned on a starboard, and a longitudinal **conveyor belt** is arranged below the deck hoppers along the longitudinal direction of the ship body and positioned above **cargo holds**; a first discharge outlet is arranged on the tail portion of the longitudinal **conveyor belt** and corresponds to a horizontal **conveyor belt**, and the horizontal **conveyor belt** is arranged along the horizontal direction of the ship body and communicates the deck starboard and a deck larboard; a second discharge outlet is arranged on the tail portion of the horizontal **conveyor belt** and corresponds to an inclined **conveyor belt**, and the inclined **conveyor belt** is upwards inclined along a deck of the larboard; and a third discharge outlet is arranged at the tail end of the inclined **conveyor belt** and corresponds to an unloading arm of a gantry crane, the unloading arm can telescope, slew and luff, and a fourth discharge outlet is arranged at the tail end of the unloading arm.

Classifications:

International (IPC 8-9): B63B27/10 B63B27/22 (Advanced/Invention)

PatBase - CN103204227_A

CN 103204227 A 说明书附图 1/9 页



Family:

Publication number	Publication date	Application number	Application date
CN103204227 A	20130717	CN201310087206	20130318

Priority:

CN201310087206 20130318

Probable Assignee: SHANGHAI MERCHANT SHIP DESIGN AND RES INST

Assignee(s): (std): SHANGHAI MERCHANT SHIP DESIGN AND RES INST

Assignee(s): SHANGHAI MERCHANT SHIP DESIGN AND RESEARCH INST

Inventor(s): (std): CAO ZHONGHUI ; DU YONGJUN ; LUO RONG ; GU YIQING ; LI LU ; MA XIAOYU ; SHAO MEIFENG ; ZHOU YAN ; WU YUQIN ; ZHU WENTING ; YUAN HE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN103204227 A	20130717	LSPB	+	published / reissued	
CN103204227 A	20130717	LSPB	+C06	PUBLICATION	
CN103204227 A	20160727	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	

Title: Vessel mooring system and method

Abstract: An apparatus is provided for securing a vessel to a stationary mooring, which apparatus permits shifting movement of the vessel in a fore and aft direction relative to the mooring while restricting movement away from the mooring. The combination comprises docking lines extending fore and aft from the vessel to the mooring to cause shifting movement of the vessel in a fore and aft direction, an elongated rail affixed to the vessel and extending substantially parallel to its longitudinal axis, a breasting dolly embracing the rail and shiftable freely fore and aft on the rail, and a breasting line secured to the dolly and extending laterally of the fore and aft direction and fixed to the mooring in a manner to restrict the dolly and rail against movement away from the mooring.

Classifications:

International (IPC 8-9): B63B21/00 (Advanced/Invention);

B63B21/00 (Core/Invention)

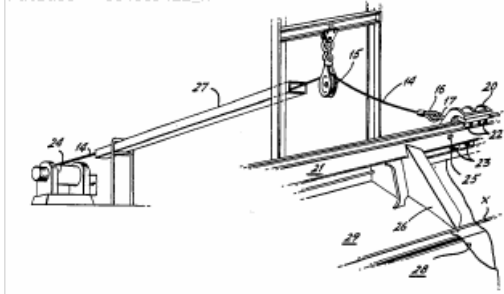
International (IPC 1-7): B63B21/00

CPC: B63B21/00

European: B63B21/00

US: 114/230 114/230.23 114/230.26 414/139 414/139.8 414/145

PatBase - US4669411_A



Family:

Publication number	Publication date	Application number	Application date
US4669411 A	19870602	US19850757022	19850719

Priority:

US19850757022 19850719

Probable Assignee: EXPRESS MARINE INC

Assignee(s): (std): EXPRESS MARINE INC

Inventor(s): (std): KAUCIC ROBERT A ; WALLING RICHARD C

Legal status (INPADOC)

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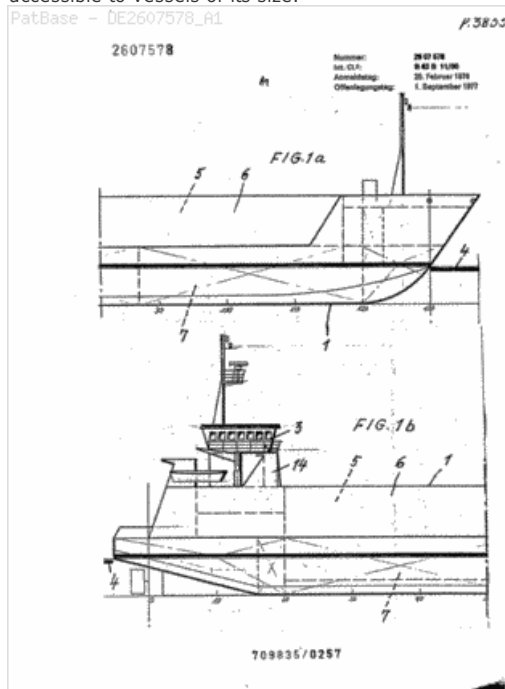
Patent	Date recorded	Event group	Code	Event	Details
US4669411 A	19870602	LSGT	+	granted / extensions (spc, cpc, pte)	
US4669411 A	19850719	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EXPRESS MARINE, INC., 29TH STREET ON THE DELAWARE, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:KAUCIC, ROBERT A.; REEL/FRAME:004433/0583 EFFECTIVE DATE : 19850719
US4669411 A	19860618	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EXPRESS MARINE, INC., 29TH STREET ON THE DELAWARE, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:WALLING, RICHARD C.; KAUCIC, ROBERT A.; REEL/FRAME:004562/0348; SIGNING DATES FROM
US4669411 A	19870401	LSGT	PAT1	Patented Case	
US4669411 A	19901130	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4669411 A	19940929	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4669411 A	19990530	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4669411 A	19990727	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19990602
US4669411 A	20180131	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4669411 A	20180131	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

Title: PONTOON TYPE CARGO VESSEL - HAS ALL CARGO SPACES ABOVE WATERLINE AND LENGTH TO BEAM RATIO OF 4 TO 1 FOR SHALLOW DRAUGHT

Abstract: The pontoon-type cargo vessel is conventional as regards propulsion and control but has its cargo space (5) entirely above the waterline (4) and a length: beam ratio of about 4:1. The spaces (7) for buoyancy and ballast, machinery and crew are below the waterline, with extensive watertight subdivision. For protection in the event of a collision the side compartments adjacent to the hull are all buoyancy/ballast ones. At one end of the vessel at least, vehicular access to the cargo space is provided for; access may also be possible through doors in the ship's side. The space may have longitudinal subdivisions (6), which may be portable, and may be covered. The wheelhouse may be retractable which, together with the vessel's draught due to its beam, allows it to use waters not normally accessible to vessels of its size.

Classifications:

International (IPC 8-9): B63B15/00 B63B25/28
 B63B35/00 (Advanced/Invention);
 B63B15/00 B63B25/00 B63B35/00 (Core/Invention)
International (IPC 1-7): B63B11/00
CPC: B63B15/00 B63B25/28 B63B35/003
European: B63B15/00 B63B25/28 B63B35/00L



Family:

Publication number	Publication date	Application number	Application date
DE2607578 A1	19770901	DE19762607578	19760225

Priority:

DE19762607578 19760225

Probable Assignee:

HARMS ULRICH

Assignee(s): (std):

HARMS ULRICH

Inventor(s): (std):

HARMS ULRICH

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2607578 A1	19770901	LSPB	+	published / reissued	
DE2607578 A1	19830721	LSLE	-8141	DISPOSAL/NO REQUEST FOR EXAMINATION	

Title: SELBSTENTLADENDES SCHIFF MIT EINER GURTFOERDERANLAGE Self-discharging vessel with a belt conveyor systems (Machine translation)

Abstract: Source: DE8117028U1 [DE] (Claim 1) 1. Selbstentladendes Schiff, mit einer Gurtfoerderanlage mit mindestens zwei im Bereich des Schiffbodens im Schiffslaengsrichtung verlaufenden Laengsfoerderern, denen jeweils ein Raempflug zugeordnet ist, und mit einem an einem Ende des Schiffes vorgesehenen C-Laengsfoerderer und einer uebergabeeinrichtung zwischen den Enden der Laengsfoerderer und der Aufgabestelle des C-Laengsfoerderers, dadurch gekennzeichnet, dass die uebergabeeinrichtung aus einem C-Querfoerderer (6) besteht, der im Bereich der Enden (18) der Laengsfoerderer (4) einen waagerechten Foerderabschnitt (19) aufweist.

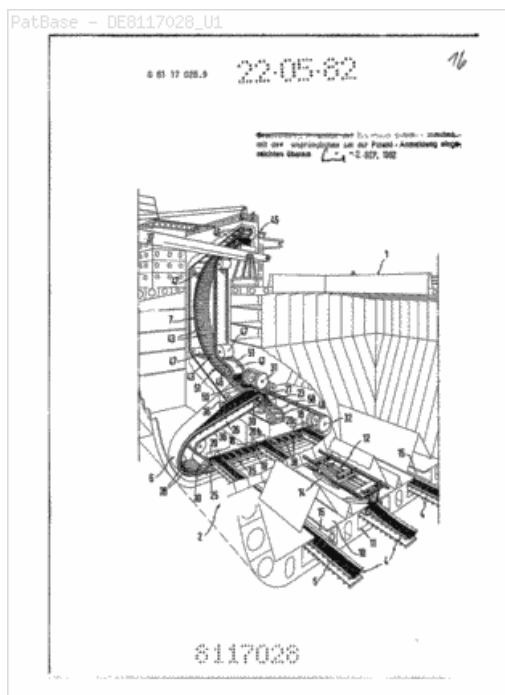
Machine translation: (Claim 1) 1 Self-discharging vessel, with a belt conveyor systems with at least two in the ship's bottom in Schiffslaengsrichtung running Laengsfoerderern, each of which a snowplow associated with a provided at one end of the ship C-Laengsfoerderer and a transfer device between the ends of Laengsfoerderer and the feed point of the C - Laengsfoerderers, wherein the transfer means comprises a C-Querfoerderer (6) is, in the vicinity of the ends (18) of Laengsfoerderer (4) has a horizontal Foerderabschnitt (19).

Classifications:

International (IPC 8-9): B63B27/22 B65G15/22 (Advanced/Invention);

B63B27/00 B65G15/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G15/22



Family:

Publication number	Publication date	Application number	Application date
DE8117028 U1	19830105	DE19810017028U	19810609

Priority:

DE19810017028U 19810609

Probable Assignee: CONRAD SCHOLTZ AG 2000 HAMBURG DE

Assignee(s): CONRAD SCHOLTZ AG 2000 HAMBURG DE

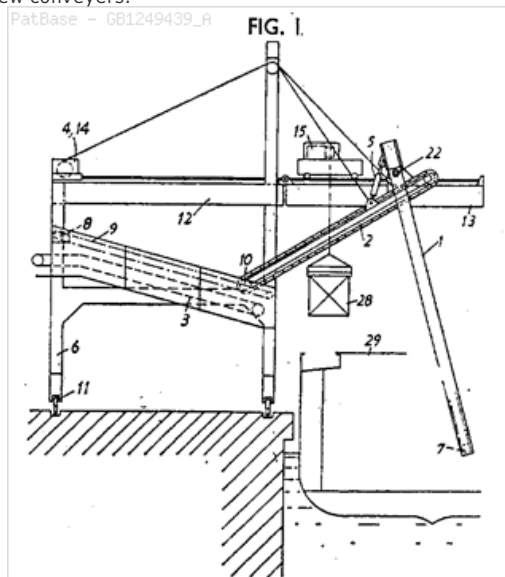
Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE8117028 U1	19830105	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: CONVEYOR INSTALLATION

Abstract: 1,249,439. Unloading ships; cranes for unloading ships; endless conveyers. WAAGNERBIRO A.G. 16 April, 1970 [17 April, 1969], No. 18313/70. Headings B8A, B8B and B8E. Apparatus for discharging ships comprises a pair of contra-rotating endless elevating bucket conveyers 1 discharging down shoots 24 on to an endless conveyor 2 arranged therebetween and extending laterally thereof. The conveyers 1 are fed by bucket wheels 7 or endless bucket conveyers (27) Fig. 6 (not shown) driven by motors (21) Fig. 5 (not shown) and are pivotally mounted on the conveyor 2 for movement by an hydraulic actuator 5. The conveyor 2 has its discharge end 10 movable along a slot 9 for discharge on to a conveyor 3 and has its other end adjustably suspended by a cable coupled to a winch 4 mounted on a gantry 6. In an alternative embodiment Fig 4 (not shown) an endless conveyor 20 is arranged between the conveyers 2 and 3. In a further embodiment Fig. 3 (not shown) the conveyers (1), (2) are suspended from the derricks (17) of a ship (29) to transfer material between ships. The discharge end of the conveyor (2) then being fitted with one or more rotary distributing units (18). The gantry 6 is also equipped with a jib 13 along which a carriage 15 may travel for the trans-shipment of containers 28. The lowering of the elevating conveyers 1 into the ship etc. may be controlled by means which sense the current consumption of the motors 21 or by sensors 25. The elevating conveyers 1 may be replaced by screw conveyers.

Classifications:**International (IPC 8-9):** B65G67/00 (Advanced/Invention)**International (IPC 1-7):** B63B27/22 B65G67/58 B66C19/00**CPC:** B65G67/00 B65G2814/0397**European:** B65G67/00 L65G814/03M**Family:**

Publication number	Publication date	Application number	Application date
AT292493 B	19710825	AT19690003683	19690417
DE2017177 A1	19701112	DE19702017177	19700410
DE7013162 U	19701022	DE19700013162U	19700410
GB1249439 A	19711013	GB19700018313	19700416

Priority:

AT19690003683 19690417

Probable Assignee:

WAAGNER BIRO AG

Assignee(s): (std):

WAAGNER BIRO AG

Assignee(s):

WAAGNER BIRO AKTIENGESELLSCHAFT

Inventor(s): (std):

HILLINGER BRUNO DR ; KRENN ALFRED

Inventor(s):

ALFRED KRENN ; DR BRUNO HILLINGER

Legal status (INPADOC)[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AT292493 B	19710825	LSGT	+	granted / extensions (spc, cpc, pte)	
AT292493 B	19760915	LSLE	-ELJ	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT292493 B	19890417	PEXP		Calculated Patent Term Expiry	
DE2017177 A1	19701112	LSPB	+	published / reissued	
DE7013162 U	19701022	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1249439 A	19711013	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1249439 A	19720223	LSGT	+PS	PATENT SEALED	
GB1249439 A	19751112	LSLE	-PLNP	PATENT LAPSED THROUGH NONPAYMENT OF RENEWAL FEES	
GB1249439 A	19900416	PEXP		Calculated Patent Term Expiry	

Title: DEVICE FOR LOADING OF BULK CARRIERS AND LOADING METHOD

Abstract: This disclosure refers to a device for assisting in the loading of bulk carriers even in rainy weather. Such device comprises: a smooth hose configured to be inserted into the opening of the hatch of the storage hold cover of the ship; a folding hose placed above the smooth hose and configured to absorb the movements of the bulk carrier relative to the device; an upper flange for fastening the device to the free end of the nozzle of the ship loader; and a lower flange configured to connect the device to the hatch opening of the storage hold cover of the ship. The disclosure also includes a method of loading bulk carriers using the device.

Classifications:

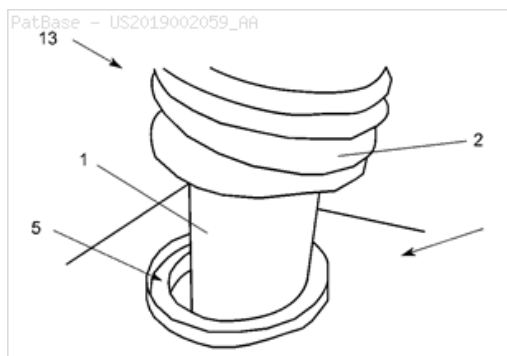
International (IPC 8-9): B63B17/02 B63B17/023 B63B19/14 B63B27/28 B65G65/32 B65G67/60 B65G69/00

B67D9/00 (Advanced/Invention)

International (IPC 1-7): B63B17/02 B63B19/14

CPC: B63B17/02 B63B17/023 B63B19/14 B65G67/606 B63B27/28 B65G69/00

US: 1/1 414/137.4



Family:

Publication number	Publication date	Application number	Application date
AR112046 AA	20190911	AR2018P101835	20180629
BR102017014425 A2	20190115	BR20171014425	20170703
CA3010083 AA	20190103	CA20183010083	20180629
CN109205347 A	20190115	CN201810719868	20180703
US2019002059 AA	20190103	US20180025775	20180702
UY37791 A1	20190131	UY20180037791	20180702

Priority:

BR20171014425 20170703

Probable Assignee: VALE S A

Assignee(s): (std): ADRIANO CIRINO SALLES ; SALLES ADRIANO CIRINO ; VALE S A ; VALE SA

Inventor(s): (std): SALLES ADRIANO CIRINO ; ADRIANO CIRINO SALLES

Agent(s): MOFFAT AND CO

Legal status (INPADOC)

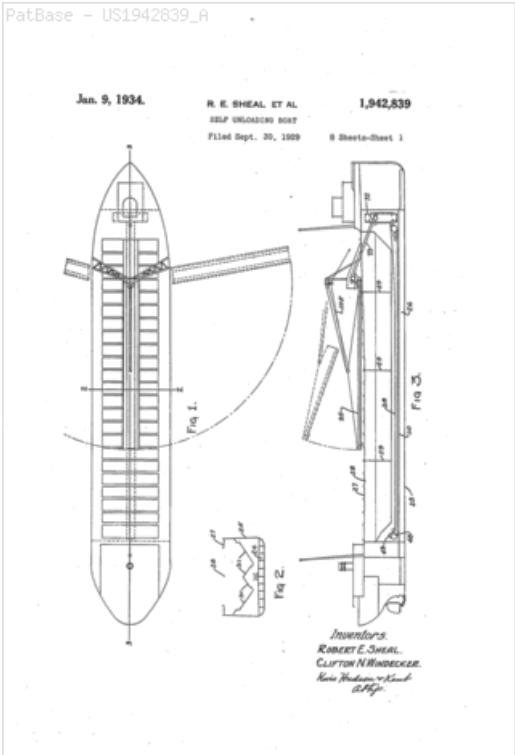
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Patent	Date recorded	Event group	Code	Event	Details
AR112046 AA	20190911	LSPB	+	published / reissued	
BR102017014425 A2	20190115	LSPB	B03A	PUBLICATION OF AN APPLICATION: PUBLICATION OF A PATENT APPLICATION OR OF A CERTIFICATE OF ADDITION OF INVENTION	
BR102017014425 A2	20190521	LSES	B65X	NOTIFICATION OF REQUIREMENT FOR PRIORITY EXAMINATION OF PATENT APPLICATION	
CA3010083 AA	20190103	LSPB	+	published / reissued	
CN109205347 A	20190115	LSPB	+	published / reissued	
CN109205347 A	20190115	LSPB	PB01	PUBLICATION	
US2019002059 AA	20190103	LSPB	+	published / reissued	
US2019002059 AA	20190625	LSES	NFA1	Non Final Action Mailed	
UY37791 A1	20190131	LSPB	+	published / reissued	

Title: SELF-UNLOADING BOAT

Abstract: 1. in a self-unloading ship the combination ei' U5 "f25 use 1-LG a **cargo hold** having a series of openings through the bottom thereof for discharging the material transported, gates for closing said openings, means for delivering said material at a point remote from the ship including a conveyor disposed adjacent said openings, a feeder adapted to travel along said series of openings for feeding the material to said conveyor, and actuating means carried by said feeder for opening and closing said gates.

Classifications:
International (IPC 8-9): B63B27/22 (Advanced/Invention);
B63B27/00 (Core/Invention)
International (IPC 1-7): B63B27/22
CPC: B63B27/22
European: B63B27/22
US: 414/142.4 414/142.5



Family:

Publication number	Publication date	Application number	Application date
US1942839 A	19340109	US19290396144	19290930

Priority:
US19290396144 19290930

Probable Assignee: SHEAL ROBERT E
Assignee(s): (std): SHEAL ROBERT E ; WINDECKER CLIFTON N
Inventor(s): (std): SHEAL ROBERT E ; WINDECKER CLIFTON N

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US1942839 A	19340109	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Bulk material loading and unloading facility for sea-going ships

Abstract: A bulk material loading and unloading facility for sea-going ships with displaceably arranged bulk material loading and unloading devices (23). Instead of a pier or a dock facility and a shore-side storage facility equipped with stackers and reloading devices and the **conveyor belt** units needed for them, a trough-shaped bulk material storage facility (14) is arranged on the ocean bottom (3) at a water depth that is safely navigable for sea-going ships, and rails (22) are laid on the side walls (15) of the bulk material storage facility. Loading and unloading devices (23) travel on these rails, and the loading and unloading devices (23) convey bulk material from ships (28) into the trough-shaped storage facility (14), or onto a **conveyor belt** unit (25) leading from this storage facility directly to a bulk material processing facility (e.g., a coal-fired power plant). The loading and unloading devices (23) can also convey bulk material from the trough-shaped bulk material storage facility (14) onto the **conveyor belt** (25) or into ships (28).

Classifications:

International (IPC 8-9): B63B27/28 B65G21/00 B65G63/00

B65G67/60 (Advanced/Invention);

B65G63/04 (Advanced/Non-invention);

B63B27/00 B65G21/00 B65G63/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65D88/78 B65G63/00

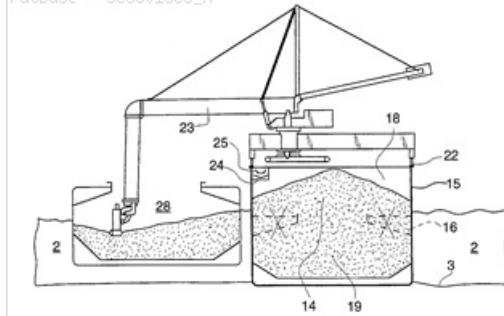
B65G63/04 B65G67/60

CPC: B63B27/28 B65G21/005 B65G63/008 B65G67/606

European: B63B27/28 B65G21/00B B65G63/00B B65G67/60C

US: 414/137.1 414/137.7 414/137.9 414/138.7 414/139.3 414/786 414/803

PatBase - US5501563_A



Family:

Publication number	Publication date	Application number	Application date
DE4303481 A1	19940811	DE19934303481	19930206
JP6255799 A2	19940913	JP19940037478	19940128
KR19940019579 A	19940914	KR19940000459	19940113
KR940019579 A	19940914	KR19940000459	19940113
SE9400170 A	19940807	SE19940000170D	19940121
SE9400170 A0	19940121	SE19940000170	19940121
SE9400170 L	19940807	SE19940000170	19940121
US5501563 A	19960326	US19940187615	19940127

Priority:

DE19934303481 19930206

Probable Assignee: MAN GUTEHOFFNUNGSHUTTE

Assignee(s): (std): GUTEHOFFNUNGSHUETTE MAN

Assignee(s): MAN GUTEHOFFNUNGSHUETTE AG ; MAN GUTEHOFFNUNGSHUETTE AG 46145 OBERHAUSEN DE ; MAN GUTEHOFFNUNGSHUETTE AKTIENGESellschaft ; MAN GUTEHOFFNUNGSHUTTE BAHNHOFSTRASSE ; MAN GUTEHOFFNUNGSHUTTE

Inventor(s): (std): GRATHOFF HARTMUT ; GRATHOFF HARTMUT DIPL ING ; HARUTOMUTO GURAATOHOFU

Inventor(s): GRATHOFF HARTMUT DIPL ING 8508 WENDELSTEIN DE ; HARTMUT GRATHOFF

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE4303481 A1	19940811	LSPB	+	published / reissued	
DE4303481 A1	19940811	LSSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE4303481 A1	19950406	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	PARTYTYPE : OWNER OWNER : MAN TAKRAF FOERDERTECHNIK GMBH, 04347 LEIPZIG, DE
DE4303481 A1	19981022	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	PARTYTYPE : OWNER OWNER : MAN TAKRAF FOERDERTECHNIK GMBH, 04347 LEIPZIG, DE
DE4303481 A1	20000504	LSLE	-8141	DISPOSAL/NO REQUEST FOR EXAMINATION	
JP6255799 A2	19940913	LSPB	+	published / reissued	
KR19940019579 A	19940914	LSPB	+	published / reissued	
KR940019579 A	19940914	LSPB	+	published / reissued	
SE9400170 A	19940807	LSPB	+	published / reissued	
SE9400170 A	19990118	LSLE	-NAV	PATENT APPLICATION HAS LAPSED	REF DOCUMENT NUMBER : 9400170-8 FORMAT OF REF DOCUMENT

(F/P) : F					
SE9400170 L	19990118	LSLE	-NAV	PATENT APPLICATION HAS LAPSED	TEXT : 9400170-8
US5501563 A	19960326	LSGT	+	granted / extensions (spc, cpc, pte)	
US5501563 A	19940127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAN GUTEHOFFNUNGSHUTTE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GRATHOFF, HARTMUT; REEL/FRAME:006882/0119 EFFECTIVE DATE : 19940111
US5501563 A	19960315	LSGT	PAT1	Patented Case	
US5501563 A	19960820	LSRE	CC	CERTIFICATE OF CORRECTION	
US5501563 A	20000326	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5501563 A	20000606	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20000326
US5501563 A	20180126	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5501563 A	20180126	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5501563 A	20140127	PEXP		Calculated Patent Term Expiry	

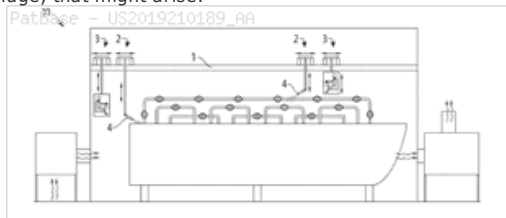
Title: SYSTEM FOR BLAST-CLEANING A BARGE DECK, SIDES, AND FITTINGS

Abstract: A system for blast-cleaning a barge deck, sides, and fittings providing for safety and avoidance of damage to the barge and to persons, where a barge is blast-cleaned with moving blaster units suspended from and traveling along an overhead track beam. In one embodiment, the moving blaster units are each controlled by a person in a moving operator capsule moving in tandem with a moving blaster unit. In another embodiment, the moving blaster units are robotically controlled from a robotic controller which has access to a three-dimensional plan of the barge, communicating with the robotic blaster units via RF antennae, and receiving real-time data from sensors located on each blaster head. Optionally, the system for blast-cleaning a barge can provide blaster-head cameras for real-time remote monitoring of operations and for recording of the operations allowing review of any issue, such as damage, that might arise.

Classifications:

International (IPC 8-9): B24C3/06 B24C3/32 B24C7/00 B63B59/06 B63B59/10 B63C1/02 B63C3/02 B63C3/06 B63C5/00 (Advanced/Invention)

CPC: B24C3/062 B24C3/10 B24C9/00 B63B35/28 B63C1/02 B63C3/02 B63C3/06 B63C5/02 B24C3/06 B24C3/32 B24C7/0046 B63B2059/065 B63B59/06



Family:

Publication number	Publication date	Application number	Application date
US2019210189 AA	20190711	US20180914734	20180307
US2019210190 AA	20190711	US20180945634	20180404
US2019210700 AA	20190711	US20180867862	20180111
WO19195427 A1	20191010	WO2019US25589	20190403

Priority:

US20180867862 20180111 US20180914734 20180307 US20180945634 20180404

Probable Assignee: CIBILICH ANTHONY

Assignee(s): (std): CIBILICH ANTHONY

Inventor(s): (std): CIBILICH ANTHONY

Agent(s): KEATY THOMAS 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 JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2019210189 AA	20190711	LSPB	+	published / reissued	
US2019210190 AA	20190711	LSPB	+	published / reissued	
US2019210700 AA	20190711	LSPB	+	published / reissued	
US2019210700 AA	20190903	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO19195427 A1	20191010	LSPB	+	published / reissued	

Title: Sea bulk transfer vessel

Abstract: A self-loading, self-discharging, bulk cargo transhipper 20 comprising a buoyant vessel 21 capable of receiving water as ballast inside the buoyant vessel 21, a bulk material receiving system 22, a bulk material distribution system 25 and a bulk material holding system 28, which transhipper 20 is a deep sea transhipper for the transfer of bulk cargo between vessels or between a port without deep draft loading facilities and a vessel at sea. The invention also relates to method of material transfer between vessels at sea or between a port without deep draft loading facilities and a vessel at sea.

Classifications:

International (IPC 8-9): B63B25/02 B63B27/22

B63B27/30 (Advanced/Invention);

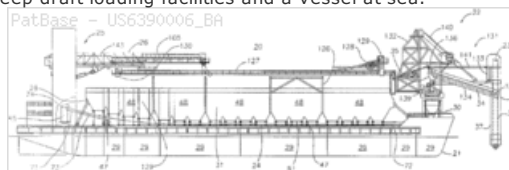
B63B25/00 B63B27/00 (Core/Invention)

International (IPC 1-7): B63B25/02 B63B27/22 B63B27/30

CPC: B63B25/02 B63B27/22

European: B63B25/02 B63B27/22

US: 114/73 414/137.9 414/138.6 414/138.7 414/139.4 414/141.8 414/142.4 414/142.5



Family:

Publication number	Publication date	Application number	Application date
US6390006 BA	20020521	US20000484591	20000118

Priority:

US20000484591 20000118

Probable Assignee: SEABULK SYSTEMS INC

Assignee(s): (std): SEABULK SYSTEMS INC

Inventor(s): (std): SRIDHAR SIDNEY

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US6390006 BA	20020521	LSGT	+	granted / extensions (spc, cpc, pte)	
US6390006 BA	20000308	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEABULK SYSTEMS, INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SRIDHAR, SIDNEY; REEL/FRAME:010595/0457 EFFECTIVE DATE : 20000203
US6390006 BA	20060522	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6390006 BA	20060621	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6390006 BA	20060621	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6390006 BA	20060718	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20060521
US6390006 BA	20200118	PEXP		Calculated Patent Term Expiry	

Title: Self-unloading method and apparatus for ships

Abstract: An unloading marine leg for a self-unloading ship including a bucket conveyor for removing granular material from the hold of a ship, the marine leg including a distal end and a discharge end with the discharge end being pivotally mounted to a carriage on a travelling bridge on the deck of the ship. The travelling bridge includes tracks extending athwartship on which the carriage is mounted for athwartship movement and the marine leg can pivot between a vertical position with the distal end near the bottom of the hold and a rest position with the marine leg parallel with the travelling bridge.

Classifications:

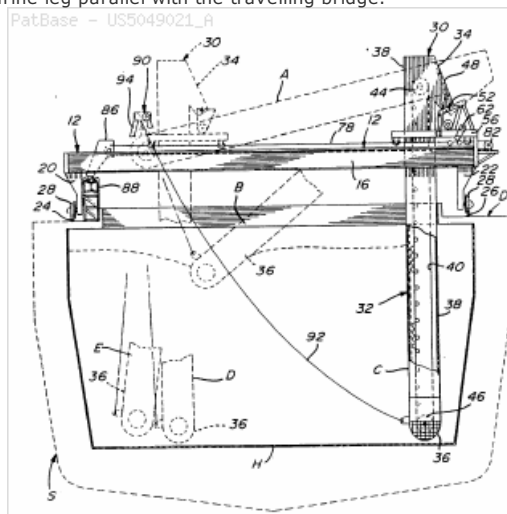
International (IPC 8-9): B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/22

CPC: B63B27/22

European: B63B27/22

US: 198/511 414/141.1 414/141.9 414/142.5 414/143.1



Family:

Publication number	Publication date	Application number	Application date
US5049021 A	19910917	US19890343613	19890427

Priority:

CA19880565293 19880427

Probable Assignee: ULS CORP

Assignee(s): (std): ULS CORP

Inventor(s): (std): BAKER DANIEL B ; POLE CHARLES D

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US5049021 A	19910917	LSGT	+	granted / extensions (spc, cpc, pte)	
US5049021 A	19890620	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ULS CORPORATION, CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:POLE, CHARLES D.; BAKER, DANIEL B.; REEL/FRAME:005126/0914 EFFECTIVE DATE : 19890424
US5049021 A	19910717	LSGT	PAT1	Patented Case	
US5049021 A	19950315	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5049021 A	19990919	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5049021 A	19991130	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19990917
US5049021 A	20180129	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5049021 A	20180129	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5049021 A	20090427	PEXP		Calculated Patent Term Expiry	

Title: **Conveyor belt** for a ship comprising unloading means.

Abstract: 1. Belt conveyor plant in a self-discharging ship, comprising two longitudinal conveyors (4) extending in the longitudinal direction of the ship in the area of the ship's bottom whereof each has allocated to it a levelling scraper (12), comprising a transfer system (6) at one extremity of the longitudinal conveyors and a vertical conveyor (7) carrying the material to be conveyed to the ship's deck, characterised in that each longitudinal conveyor (4) conveys with the bottom leg (20) of its **conveyor belt** (18) equipped with corrugated lateral sides (16) and has a lifting wheel (23) situated at the transfer system (6) as a deflecting drum for the **conveyor belt** and comprising a peripherally extending recess (27) in which the **conveyor belt** engages with its corrugated sides, in such a manner that the lifting wheel acts with its two flanges (30, 31), defined by the recess, on marginal sections (32) of the **conveyor belt** which project laterally beyond the corrugated sides so that the radial depth of the recess corresponds in lifting volume to the height of the corrugated sides.

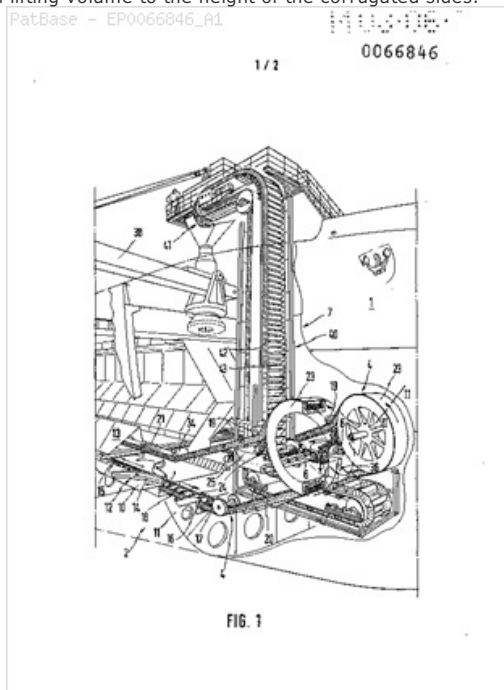
Classifications:

International (IPC 8-9): B63B27/22 B65G15/22 B65G15/40 B65G29/02 B65G47/94 B65G67/60 (Advanced/Invention); B63B27/00 B65G15/00 B65G15/32 B65G29/00 B65G47/74 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G15/22 B65G15/40 B65G29/02 B65G65/42 B65G67/60

CPC: B63B27/22 B65G29/02 B65G47/40

European: B63B27/22 B65G29/02 B65G47/40



Family:

Publication number	Publication date	Application number	Application date
AT11757 E	19850215	AT19820104863T	19820603
AU198284355 A1	19831215	AU19820084355	19820601
DE3122817 A1	19821230	DE19813122817	19810609
DE3262305 D1	19850328	DE19823262305	19820603
EP0066846 A1	19821215	EP19820104863	19820603
EP0066846 B1	19850213	EP19820104863	19820603
JP58002139 A2	19830107	JP19820097911	19820609

Priority:

DE19813122817 19810609 DE19823262305 19820603 EP19820104863 19820603

Probable Assignee: SCHOLTZ AG CONRAD

Assignee(s): (std): SCHOLTZ AG CONRAD ; SCHOLTZ CONRAD AG

Assignee(s): CONRAD SCHOLTZ AG ; KONRAATO SHIYORUTSU AG

Inventor(s): (std): PAELKE JUERGEN ; PAELKE JURGEN ; YURUGEN PERUKE

Agent(s): GRIFFITH HACK

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT11757 E	19850215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT11757 E	19860915	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT11757 E	20020603	PEXP		Calculated Patent Term Expiry	
AU198284355 A1	19831215	LSPB	+	published / reissued	
DE3122817 A1	19821230	LSPB	+	published / reissued	
DE3122817 A1	19850515	LSWD	-8130	WITHDRAWAL	
DE3262305 D1	19860612	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
EP0066846 A1	19821215	LSPB	+	published / reissued	

EP0066846 A1	19830309	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19821220
EP0066846 B1	19850213	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0066846 B1	19850603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT LAPSED DATE : 19850603
EP0066846 B1	19850604	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE LAPSED DATE : 19850604
EP0066846 B1	19850630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE LAPSED DATE : 19850630
EP0066846 B1	19850630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH LAPSED DATE : 19850630
EP0066846 B1	19850630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI LAPSED DATE : 19850630
EP0066846 B1	19851231	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : CONRAD SCHOLTZ A.G. EFFECTIVE DATE : 19850603
EP0066846 B1	19860101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19860101
EP0066846 B1	19860212	LSGT	+26N	NO OPPOSITION FILED	
EP0066846 B1	19860228	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 : 19860228
EP0066846 B1	19860228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0066846 B1	19860301	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE LAPSED DATE : 19860301
EP0066846 B1	19860317	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP
EP0066846 B1	19860425	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0066846 B1	19870318	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP
EP0066846 B1	19881121	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB LAPSED DATE : 19881121
EP0066846 B1	19950131	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP TEXT : 82104863.4 EFFECTIVE DATE : 19860728
JP58002139 A2	19830107	LSPB	+	published / reissued	

Title: Vessel loading method

Abstract: A large cargo vessel is loaded by moving a self-unloading barge alongside and fixing it relative to the vessel. A boom assembly of the barge is slewed into alignment with a hold of the vessel whereupon a shuttle conveyor is extended over the open hold. Bulk material is then unloaded from the barge to the vessel. The boom assembly can be incrementally slewed, luffed, extended and retracted to position cargo in the hold. And, the barge can be repositioned next to the ship without assistance of a tug.

Classifications:

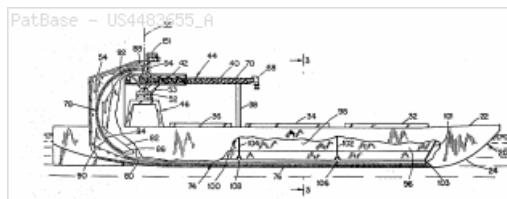
International (IPC 8-9): B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B65G67/60

CPC: B63B27/22

European: B63B27/22

US: 414/137.9 414/141.9 414/142.3 414/144 414/145 414/786 414/803



Family:

Publication number	Publication date	Application number	Application date
US4483655 A	19841120	US19820426222	19820928

Priority:

US19820426222 19820928

Probable Assignee: AMCA INT CORP

Assignee(s): (std): AMCA INT CORP

Assignee(s): AMCA INT

Inventor(s): (std): GWYN PETER ; HULETTE ROGER L ; MARTINSON JR ALBERT M ; SNOW FREDERICK O

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US4483655 A	19841120	LSGT	+	granted / extensions (spc, cpc, pte)	
US4483655 A	19820928	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AMCA INTERNATIONAL CORPORATION, DARTMOUTH NATIONAL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:SNOW, FREDERICK O.; HULETTE, ROGER L.; MARTINSON, ALBERT M. JR.; AND OTHERS; REEL/FRAME:004050/0681; SIGNING DATES FROM 19820913 TO 19820927
US4483655 A	19840920	LSGT	PAT1	Patented Case	
US4483655 A	19881120	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US4483655 A	19890207	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19881120
US4483655 A	19921122	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4483655 A	19930202	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19921122
US4483655 A	20180123	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4483655 A	20180123	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

Title: ANGLED CARGO DISCHARGE GATE

Abstract: A basket gate mechanism, typically for use in the **cargo holds** of bulk carriers, includes two opposed gate segments which shut along a central line. Each gate segment is supported at its ends by pairs of different length arms, so that when the gate is opened, the segments slope downwardly. The pairs of arms are interconnected by a mechanism that ensures coordination of the movement of the segments. The arms and the supporting framework are protected by a hog back. The gate is opened and closed by a double acting hydraulic cylinder, located between the gate ends. The cylinders provide three gate positions: closed, operating to discharge solids, and clean out, which considerably simplifies the equipment required for controlling the opening and closing of the gate. The gate opening is angled relative to the conveyor beneath it, so that the downstream end is further away than the downstream end. The linkage means supporting the gate segments is constructed to minimise torsional stress in the gate segments as a result of the trapezoidal opening resulting from the gate being angled. The downstream ends of the gate segments also includes a pair of shear plates, which serve to control the level of the solids discharged onto the conveyor.

Classifications:

International (IPC 8-9): B63B25/08 B65D90/54 B65D90/62

B65G67/60 (Advanced/Invention);

B63B25/00 B65D90/00 B65G67/00 (Core/Invention)

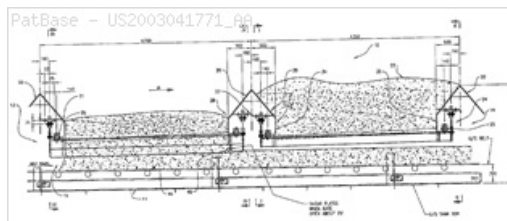
International (IPC 1-7): B61D3/00 B63B25/08 B65D90/54

B65G67/60

CPC: B65D90/623 B65D2590/547 B65D2590/662

European: B65D90/62A L65D590/54C L65D590/66A

US: 105/247 105/250 298/26 414/303



Family:

Publication number	Publication date	Application number	Application date
CA2399332 AA	20030224	CA20022399332	20020821
CA2399332 C	20090428	CA20022399332	20020821
GB200120692 A0	20011017	GB20010020692	20010824
US2003041771 AA	20030306	US20020224325	20020821
US6745701 BB	20040608	US20020224325	20020821

Priority:

GB20010020692 20010824

CA20022399332 20020821

Probable Assignee:

EMS TECH INC

Assignee(s): (std):

ELDER JOHN B ; EMS TECH INC

Assignee(s):

EMS TECH INC 699 DU

Inventor(s): (std):

ELDER JOHN B

Agent(s):

SHAPIRO COHEN; MILTONS IP PI

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2399332 AA	20030224	LSPB	+	published / reissued	
CA2399332 AA	20040818	LSSES	+EEER	EXAMINATION REQUEST	
CA2399332 C	20090428	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2399332 C	20161003	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20160822
CA2399332 C	20220821	PEXP		Calculated Patent Term Expiry	
GB200120692 A0	20030226	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
US2003041771 AA	20030306	LSPB	+	published / reissued	
US6745701 BB	20040608	LSGT	+	granted / extensions (spc, cpc, pte)	
US6745701 BB	20021108	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EMS-TECH INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ELDER, JOHN B.; REEL/FRAME:013457/0148 EFFECTIVE DATE : 20020923
US6745701 BB	20040520	LSGT	PAT1	Patented Case	
US6745701 BB	20070927	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6745701 BB	20111202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6745701 BB	20160608	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE	

FEES					
US6745701 BB	20160704	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6745701 BB	20160704	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6745701 BB	20160726	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160608
US6745701 BB	20220821	PEXP		Calculated Patent Term Expiry	

Title: Ship unloading apparatus

Abstract: This invention relates to an apparatus for continuous unloading of dry loose particulate material from especially ships. The apparatus provides continuous conveyance of particulate materials through an entirely closed system whereby air pollution, spillage, irregular unloading and sensitivity to weather conditions are eliminated or highly reduced.

Classifications:

International (IPC 8-9): B65G65/38 B65G67/00

B65G67/60 (Advanced/Invention);

B65G65/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B B65G33/08 B65G33/14 B65G37/00

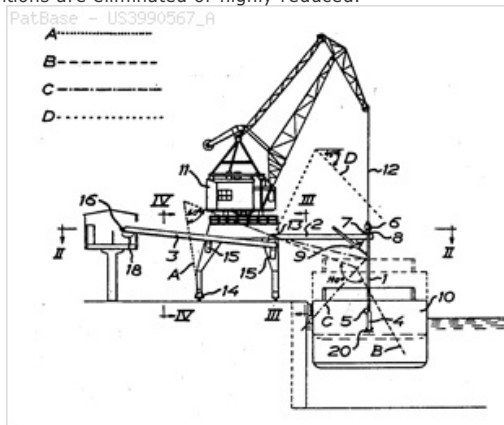
B65G63/00 B65G65/22 B65G65/38 B65G67/58 B65G67/60

B65G69/18 B66C 23/06

CPC: B65G67/00 B65G2814/0397

European: B65G67/00 L65G814/03M

US: 198/518 198/592 198/611 414/140.7 414/140.9



Family:

Publication number	Publication date	Application number	Application date
AU197585908 A1	19770428	AU19750085908	19751021
BE795805 A	19730618		00000000
BE795805 A1	19730618	BE19730127968	19730222
CA979388 A1	19751209	CA19730164442	19730223
DE2308558 A1	19730830	DE19732308558	19730221
DE2308558 B2	19780629	DE19732308558	19730221
DE2308558 C3	19790301	DE19732308558	19730221
FR2173274 A1	19731005	FR19730006543	19730223
FR2173274 B1	19780811	FR19730006543	19730223
GB1374550 A	19741120	GB19730008092	19730219
IT977876 A	19740920	IT19730067465	19730223
JP48094167 A2	19731204	JP19730022584	19730224
MY7500187 A	19751231	MY19750000187	19751230
NL173624 B	19830916	NL19730002604	19730223
NL173624 C	19840216	NL19730002604	19730223
NL7302604 A	19730828	NL19730002604	19730223
SE377099 B	19750623	SE19720002285	19720224
SE377099 C	19751009	SE19720002285	19720224
US3990567 A	19761109	US19740521192	19741105

Priority:

SE19720002285 19720224 US19730333452 19730220 US19740521192 19741105
 AU19750085908 19751021

Probable Assignee: SCANIAINVENTOR AB

Assignee(s): (std): SCANIAINVENTOR AB

Assignee(s): SCANIAINVENTOR AB SW ; AKTIEBOLAGET SCANIAINVENTOR ; AB SCANIAINVENTOR TE
 HELSINGBORG ZWEDEN ; TELL KARL G ; SIWERSSON OLLE L ; AB SCANIAINVENTOR INDUSTRIGATAN
 37 252 29 HELSINGBORG SUEDE ; 3SCANIAINVENTOR AB ; A B SCANIAINVENTOR INDUSTRIGATAN 37
 252 29 HELSINGBORG SUEDE ; AB SCANIA INVENTOR ; AB SCANIAINVENTOR ; AB SCANIAINVENTOR
 HELSINGBORG SCHWEDEN

Inventor(s): (std): TELL KARL GUNNAR ; SIWERSSON OLLE LENNART ; TELL K G ; SIWERSSON O L ; SIWERSSON OLLE L ;
 TELL KARL G

Inventor(s): TELL KG ; OLLE LENNART SIWERSSON ; KARL GUNNAR TELL ; GUNNAR TELL KARL ; K G TELL ;
 LENNART SIWERSSON OLLE ; O L SIWERSSON ; OL SIWERSSON

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU197585908 A1	19770428	LSPB	+	published / reissued	
BE795805 A	19730618	LSPB	+	published / reissued	
BE795805 A	19920831	LSLE	-RE	PATENT LAPSED	PARTYTYPE : OWNER OWNER : SCANIAINVENTOR A.B. EFFECTIVE DATE : 19920228
BE795805 A1	19730618	LSPB	+	published / reissued	
BE795805 A1	19920831	LSLE	-RE	PATENT LAPSED	OWNER NAME :

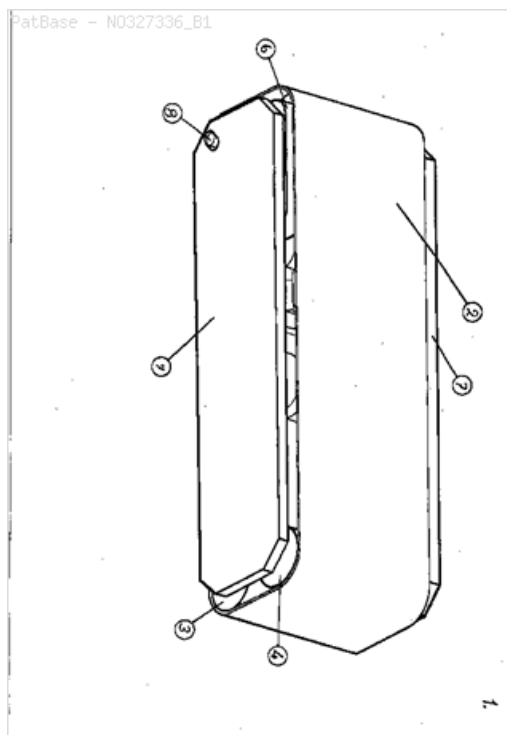
DE2308558 A1	19730830	LSPB	+	published / reissued
DE2308558 B2	19780629	LSPB	+	published / reissued
DE2308558 C3	19790301	LSGT	+	granted / extensions (spc, cpc, pte)
DE2308558 C3	19790301	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)
FR2173274 A1	19731005	LSPB	+	published / reissued
FR2173274 B1	19780811	LSGT	+	granted / extensions (spc, cpc, pte)
FR2173274 B1	19921231	LSLE	-ST	NOTIFICATION OF LAPSE
FR2173274 B1	19930223	PEXP		Calculated Patent Term Expiry
GB1374550 A	19741120	LSGT	+	granted / extensions (spc, cpc, pte)
GB1374550 A	19750403	LSGT	+PS	PATENT SEALED
GB1374550 A	19921014	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
GB1374550 A	19930219	PEXP		Calculated Patent Term Expiry
IT977876 A	19740920	LSGT	+	granted / extensions (spc, cpc, pte)
IT977876 A	19930223	PEXP		Calculated Patent Term Expiry
JP48094167 A2	19731204	LSPB	+	published / reissued
MY7500187 A	19751231	LSPB	+	published / reissued
NL173624 B	19830916	LSPB	+	published / reissued
NL173624 B	19930223	PEXP		Calculated Patent Term Expiry
NL173624 C	19840216	LSGT	+	granted / extensions (spc, cpc, pte)
NL173624 C	19921016	LSLE	-V1	LAPSED BECAUSE OF NON-PAYMENT OF THE ANNUAL FEE
NL173624 C	19930223	PEXP		Calculated Patent Term Expiry
NL7302604 A	19730828	LSPB	+	published / reissued
NL7302604 A	19800225	LSES	+BC	A REQUEST FOR EXAMINATION HAS BEEN FILED
SE377099 B	19750623	LSPB	+	published / reissued
SE377099 C	19751009	LSGT	+	granted / extensions (spc, cpc, pte)
SE377099 C	19920224	PEXP		Calculated Patent Term Expiry
US3990567 A	19761109	LSGT	+	granted / extensions (spc, cpc, pte)

Title: PERMANENTMAGNETISK BELTEGAENDE KJOERETOEY. Permanent MAGNETIC BELTEGAENDE KJOERETOEY. (Machine translation)

Abstract: Source: NO327336B [NO] Et beltedrevet kjoeretoey for bruk pa underlag av jern og stalholdlige materialer har et belte (2) som er drevet av minst en drivrull (4) med sin egen transmisjon og drift (en pneumatisk, hydraulisk eller elektrisk motor). Beltet omslutter drivrullene (4) og permanentmagnetiske hjul (1) som er fritt opplagrede pa minst to aksler. Akslene er plassert pa den siden av kjoeretoeyet som er naermest underlaget. De permanentmagnetiske hjulene (1) har en regulerbar vedheftingskraft. **Machine translation:** A belt driven kjoeretoey for use on the surface of iron and steel hold materials have a belt (2) driven by at least one drive roller (4) with its own transmission and operation (a pneumatic, hydraulic or electric motor). The belt encloses the drive rollers (4) and permanent magnetic wheels (1) which is freely journaled on at least two axles. The shafts are placed on the side of kjoeretoeyet which is nearest the substrate. The permanent magnetic wheels (1) has an adjustable adheres.

Classifications:

International (IPC 8-9): B62D55/265 (Advanced/Invention);
B63B59/10 (Advanced/Non-invention)



Family:

Publication number	Publication date	Application number	Application date
NO20062880 A	20071221	NO20060002880	20060620
NO20062880 L	20071221	NO20060002880	20060620
NO327336 B1	20090615	NO20060002880	20060620

Priority:

NO20060002880 20060620

Probable Assignee:

NORHULL AS

Assignee(s): (std):

NORHULL AS ; STANA LEIF

Inventor(s): (std):

STANA LEIF

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
NO20062880 A	20071221	LSPB	+	published / reissued	
NO327336 B1	20090615	LSGT	+	granted / extensions (spc, cpc, pte)	
NO327336 B1	20130225	LSAS	CHAD	CHANGE OF THE OWNER'S NAME OR ADDRESS (PAR. 44 PATENT LAW, PAR. PATENTFORSKRIFTEN)	PARTYTYPE : OWNER OWNER : NORHULL AS, NO
NO327336 B1	20160125	LSLE	-MM1K	LAPSED BY NOT PAYING THE ANNUAL FEES	
NO327336 B1	20161017	LSRE	+RE	REESTABLISHMENT OF RIGHTS (PAR. 72 PATENTS ACT)	
NO327336 B1	20180115	LSAS	CHAD	CHANGE OF THE OWNER'S NAME OR ADDRESS (PAR. 44 PATENT LAW, PAR. PATENTFORSKRIFTEN)	PARTYTYPE : OWNER OWNER : BRI NORHULL AS, NO

Title: OPTIMIZE ON -WATER GARBAGE COLLECTION SHIP OF FLIGHT PATH PLANNING

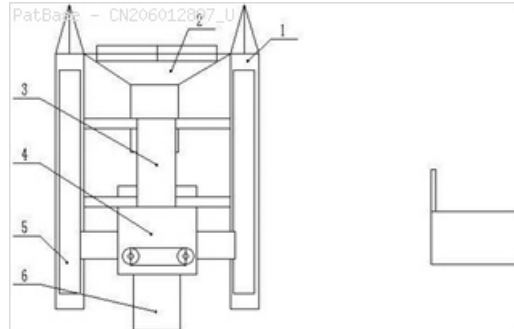
Abstract: The utility model discloses an optimize on -water garbage collection ship of flight path planning, belong to and clean technical field, for having solved a difficult problem of handling surface of water floater, and optimization on -water garbage collection ship's flight path, this rubbish clearing boat includes the binary hull, the compressor of setting on the binary hull, the conveyer belt is extracted to the setting on the binary hull, the setting pushes up the water spray engine that moves ship motion at the binary hull, the **carriage hold** of setting on the binary hull and the V -arrangement baffle of setting on the binary hull, be equipped with compass positioning system on the binary hull, still be equipped with laser distance measurement system, rubbish video identification system and transmission system on the binary hull, solved a difficult problem of handling surface of water floater for the user can onshore in the light of actual conditions plan on -water garbage collection ship's flight path, has the beneficial effect of protection surface of water environment and reduction energy consumption.

Classifications:

International (IPC 8-9): B63B35/32 E02B15/10

G01C21/00 (Advanced/Invention)

CPC: B63B35/32 E02B15/104 G01C21/00



Family:

Publication number	Publication date	Application number	Application date
CN106218825 A	20161214	CN201610831702	20160919
CN106218825 B	20190426	CN201610831702	20160919
CN206012897 U	20170315	CN201621062997U	20160919

Priority:

CN201610831702 20160919 CN201621062997U 20160919

Probable Assignee: ANHUI TECHNICAL COLLEGE MECHANICAL AND ELECTRICAL ENG

Assignee(s): (std): ANHUI TECHNICAL COLLEGE MECHANICAL AND ELECTRICAL ENG ; ANHUI TECHNICAL COLLEGE OF MECHANICAL AND ELECTRICAL ENGINEERING

Inventor(s): (std): HE XIAOFENG

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN106218825 A	20161214	LSPB	+	published / reissued	
CN106218825 A	20161214	LSPB	+C06	PUBLICATION	
CN106218825 A	20161214	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN106218825 B	20190426	LSGT	+	granted / extensions (spc, cpc, pte)	
CN106218825 B	20190426	LSGT	+GR01	PATENT GRANT	
CN106218825 B	20360919	PEXP		Calculated Patent Term Expiry	
CN206012897 U	20170315	LSGT	+	granted / extensions (spc, cpc, pte)	
CN206012897 U	20170315	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN206012897 U	20180904	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN206012897 U	20260919	PEXP		Calculated Patent Term Expiry	

Title: BULK CARGO LOADER FOR SHIP - HAS SPIRAL ELEVATOR DISCHARGING INTO FUNNEL WITH SLEWING RING COUPLING

Abstract: The equipment loads piece goods and bulk material by means of a spiral chute, being partic. for use with ships. The chute (3) discharges into a funnel (5) to which a slewing bend (11) can be connected, ending above a **conveyor belt** (13) connected to it. The funnel can be coupled to the lower edge of the chute via a slewing ring (6), equipped with an external gear ring (7) meshing with a motor-driven pinion (9). The bend can be coupled to the funnel by a detachable quick-action union, typically a hollow clamping ring fitting round flanges on funnel and bend.

Classifications:

International (IPC 8-9): B63B27/28 B65G11/06

B65G67/60 (Advanced/Invention);

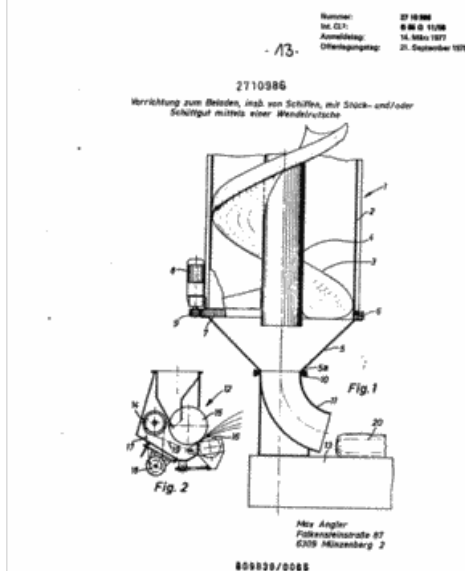
B63B27/00 B65G11/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/28 B65G11/06 B65G67/58

CPC: B63B27/28 B65G11/06 B65G67/603

European: B63B27/28 B65G11/06 B65G67/60A

PatBase - DE2710986_A1



Family:

Publication number	Publication date	Application number	Application date
DE2710986 A1	19780921	DE19772710986	19770314

Priority:

DE19772710986 19770314

Probable Assignee:

ANGLER MAX

Assignee(s): (std):

ANGLER MAX

Inventor(s): (std):

ANGLER MAX

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2710986 A1	19780921	LSPB	+	published / reissued	
DE2710986 A1	19780921	LSES	+OAP	REQUEST FOR EXAMINATION FILED	
DE2710986 A1	19781102	LSES	+OD	REQUEST FOR EXAMINATION	
DE2710986 A1	19790531	LSRV	-OHW	REJECTION	

Title: Apparatus for measuring the distance to the floor of the **cargo hold** of a ship through intervening bulk material

Abstract: Apparatus for measuring the distance to and through magnetically permeable materials having a planar surface includes a dipole field generating magnetic field transmitting antenna and a dipole field sensitive receiver antenna. The antennae are displaced from one another in a direction parallel to the planar surface a distance d with the field axis of one antenna, preferably the transmitting antenna, parallel to the planar surface and with the axis of the field of the other antenna intersecting and perpendicular to the axis of the field of the first antenna and substantially perpendicular to the planar surface. With this arrangement, perturbations in the magnetic field caused by the magnetically permeable material induce a signal in the receiver antenna which is proportional to $1/D^3$ where D is the distance between the antenna and the planar surface and is of the same order as d . The effects of intervening or adjacent fixed or rotating magnetically permeable materials are nulled out geometrically and/or electrically.

Classifications:

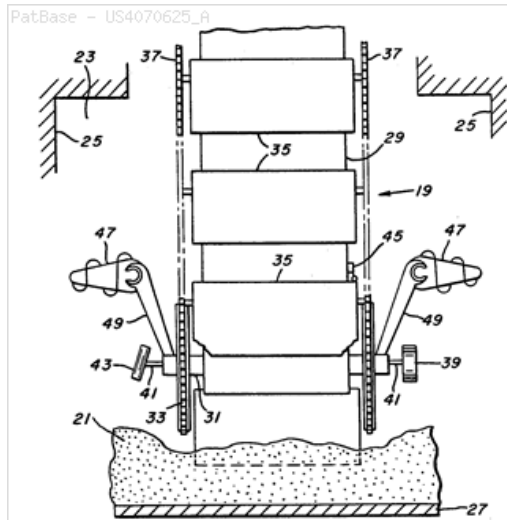
International (IPC 8-9): G01B15/02 G01B7/00 G01B7/06 G01B7/14
G01C3/06 G01F23/26 (Advanced/Invention);
G01B15/02 G01B7/00 G01B7/02 G01B7/14 G01C3/06
G01F23/22 (Core/Invention)

International (IPC 1-7): B63B25/04 B63B27/22 G01B15/02
G01B7/02 G01F23/28 G01R33/12

CPC: G01B7/105 G01B7/14 G01F23/26

European: G01B7/10C G01B7/14 G01F23/26

US: 324/239 324/67 414/141.9 414/142.5 414/699



Family:

Publication number	Publication date	Application number	Application date
FR2364433 A1	19780407	FR19770027455	19770912
JP53059454 A2	19780529	JP19770111178	19770913
NL7710092 A	19780316	NL19770010092	19770914
US4070625 A	19780124	US19760723066	19760914

Priority:

US19760723066 19760914

Probable Assignee: DRAVO CORP

Assignee(s): (std): DRAVO CORP

Assignee(s): DRAVO TE PITTSBURGH PENNSYLVANIE VER ST V AM CORP

Inventor(s): (std): HARPSTER JOSEPH W ; JIYOSUFU UIRIAMU HAAPUSUTAA

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
FR2364433 A1	19780407	LSPB	+	published / reissued	
FR2364433 A1	19820730	LSLE	-ST	NOTIFICATION OF LAPSE	
JP53059454 A2	19780529	LSPB	+	published / reissued	
NL7710092 A	19780316	LSPB	+	published / reissued	
US4070625 A	19780124	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: SELF-LOADING AND UNLOADING VESSEL

Abstract: ABSTRACT OF THE DISCLOSURE

A self-loading and unloading dual cargo vessel for carrying a fluid cargo and a particulate bulk cargo. The vessel comprises marginal fluid **cargo holds** and a central bulk **cargo hold** therebetween. The bulk **cargo hold** has inclined lower sides which converge to deliver the bulk cargo to an unloading conveyor system. There is at least one longitudinal loading trench in the upper deck over the bulk **cargo hold** spanning substantially the entire fore and aft dimensions of the hold. A mobile and reversible conveyor is positioned over the trench and extends over approximately one-half the length of the trench. The mobile conveyor is positionable to deliver bulk cargo over substantially any longitudinal position in the hold. A loading device comprising at least one hopper is located amidships or in another suitable position for feeding the mobile conveyor. The mobile conveyor and trench are permanently enclosed.

Classifications:

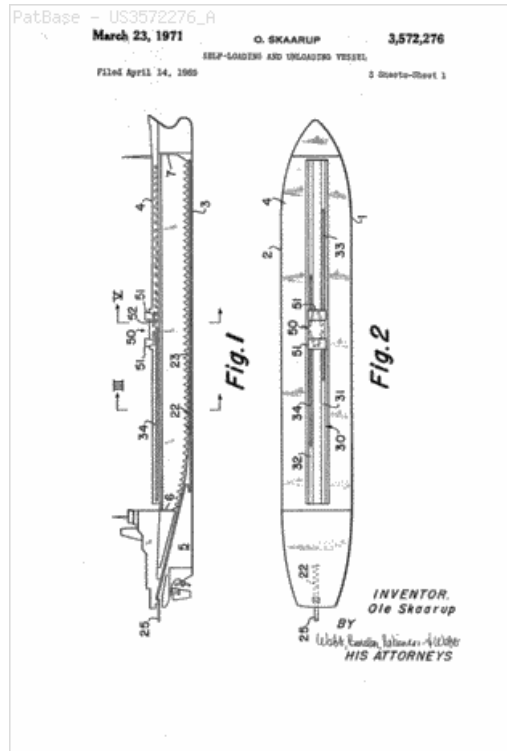
International (IPC 8-9): B63B27/22 B65G69/00 (Advanced/Invention);
B63B27/00 B65G69/00 (Core/Invention)

International (IPC 1-7): B63B25/02 B63B27/22 B63B35/02

CPC: B63B27/22 B65G69/0408

European: B63B27/22 B65G69/00 L65G814/02S1

US: 114/73 414/142.2 414/142.3



Family:

Publication number	Publication date	Application number	Application date
US3572276 A	19710323	US19690815908	19690414

Priority:

US19690815908 19690414

Probable Assignee:

OLE SKAARUP

Assignee(s): (std):

OLE SKAARUP

Inventor(s): (std):

SKAARUP OLE

Inventor(s):

OLE SKAARUP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US3572276 A	19710323	LSGT	+	granted / extensions (spc, cpc, pte)	
US3572276 A	19890414	PEXP		Calculated Patent Term Expiry	

Title: Apparatus for sealing a connection between two mutually shiftable components

Abstract: Two components, for example, conveyors, are interconnected by the intermediary of a connecting portion. The component connected to the connecting portion is shiftable along an elongate opening in the other component. The elongate opening is closable by means of a flexible web length which extends in the longitudinal direction of the elongate opening and in a loop about the connecting portion of the movable component. The connecting portion has guide means for successive lifting-out and laying of the web length respectively away from and towards the elongate opening on shifting of the connecting portion therealong.

Classifications:

International (ipc 8-9): B65G69/18 (Advanced/Invention);
B65G69/00 (Core/Invention)

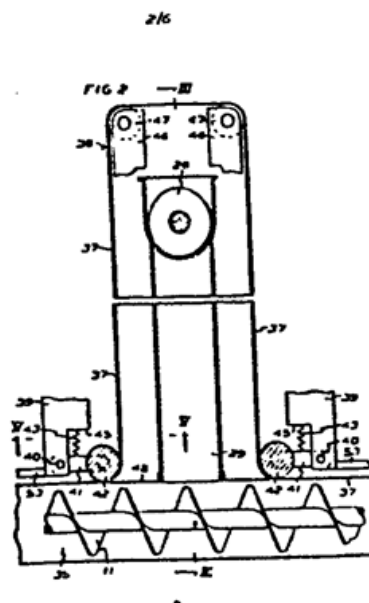
International (ipc 1-7): B63B27/20 B63B27/22 B65G15/22
B65G21/08 B65G21/10 B65G69/18

CPC: B65G69/181

European: B65G69/18B

US: 160/122 198/594 198/860.5 199/594 414/141.9 414/142.1

PatBase - US4234075_A



Family:

Publication number	Publication date	Application number	Application date
EP0007291 A1	19800123	EP19790850035	19790425
SE432915 B	19840430	SE19780004841	19780427
SE432915 C	19840809	SE19780004841	19780427
SE7804841 A	19791028	SE19780004841	19780427
SE7804841 L	19791028	SE19780004841	19780427
US4234075 A	19801118	US19790033642	19790425

Priority:

SE19780004841 19780427

Probable Assignee: SIWERTELL AB

Assignee(s): (std): SIWERTELL AB

Assignee(s): AB SIWERTELL

Inventor(s): (std): TINGSKOG KARL AUGUST LENNART ; TINGSKOG K A L ; TINGSKOG KARL A L

Inventor(s): K A L TINGSKOG

Designated states: BE DE FR GB IT NL

Legal status (INPADOC)

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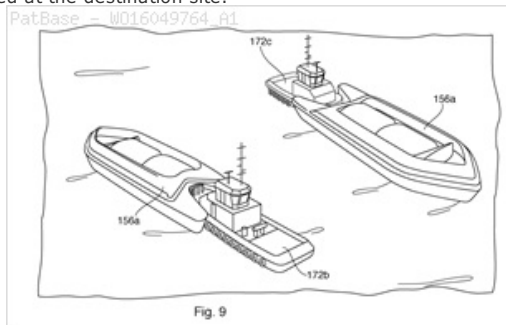
Patent	Date recorded	Event group	Code	Event	Details
EP0007291 A1	19800123	LSPB	+	published / reissued	
EP0007291 A1	19810128	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19801031
SE432915 B	19840430	LSPB	+	published / reissued	
SE432915 B	19950131	LSLE	-NUG	PATENT HAS LAPSED	TEXT : 7804841-0 EFFECTIVE DATE : 19890427
SE432915 C	19840809	LSGT	+	granted / extensions (spc, cpc, pte)	
SE432915 C	19980427	PEXP		Calculated Patent Term Expiry	
SE7804841 A	19791028	LSPB	+	published / reissued	
US4234075 A	19801118	LSGT	+	granted / extensions (spc, cpc, pte)	
US4234075 A	19801118	LSGT	PAT1	Patented Case	

Title: SYSTEM AND METHOD FOR DELIVERING A CONSUMABLE COMMODITY

Abstract: A method and system for delivery a consumable commodity between a preparation site and a destination site includes preparing a first quantity of the commodity at the preparation site, locating the first quantity of prepared commodity onto a first transportation vehicle or first mobile storage tank assembly and transporting the first quantity of prepared commodity from the preparation site to the destination site. While the first transportation vehicle or first mobile storage tank assembly is located at the destination site, the first quantity of prepared commodity is supplied. While carrying out the transporting or the supplying of the first quantity of prepared commodity, preparing a second quantity of the commodity at the preparation site, loading the second quantity of prepared commodity onto a second transportation vehicle or a second mobile storage tank assembly, transporting the second quantity of prepared commodity to the destination site, whereby the arrival of the second quantity of prepared commodity at the destination site substantially corresponds in time with the depletion of the first quantity of prepared commodity being supplied. After supplying the first quantity of prepared commodity, the second quantity of the prepared commodity is supplied at the destination site.

Classifications:

International (IPC 8-9): B63B27/30 F17C13/00 (Advanced/Invention)
CPC: B63B35/70 B63B35/308 B63B35/44 B63B2035/448 B63H25/16
 F17C2221/012 F17C2221/032 F17C2221/033 F17C2221/035
 F17C2223/0153 F17C2223/0161 F17C2223/033 F17C2265/061
 F17C2270/0105 F17C2270/0113 Y02E60/321



Family:

Publication number	Publication date	Application number	Application date
CA2961953 AA	20170320	CA20152961953	20150930
WO16049764 A1	20160407	WO2015CA50982	20150930

Priority:

US20140057626P 20140930 WO2015CA50982 20150930

Probable Assignee: TUGLIQ ENERGY CO

Assignee(s): (std): TUGLIQ ENERGY CO

Assignee(s): RIVARD PIERRE ; ABBATIello LAURENT ; PELLAND CEDRIC

Inventor(s): (std): ABBATIello LAURENT ; PELLAND CEDRIC ; RIVARD PIERRE

Agent(s): BERESKIN AND PARR LLP SENCRL SRL

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2961953 AA	20170320	LSPB	+	published / reissued	
WO16049764 A1	20160407	LSPB	+	published / reissued	
WO16049764 A1	20170320	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2961953 COUNTRY OF REF DOCUMENT : CA
WO16049764 A1	20170330	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16049764 A1	20171025	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 15846051 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: CARGO ANTI-SHIFTING APPARATUS

Abstract: (Claim 1) 1. In a cargo hold having a bottom, two end walls and two side walls, a fluid - cargo anti-surging structure for quickly converting the cargo hold from a single large hold into a plurality of smaller compartments, comprising a plurality of verticalexending post means arran.-ed adjacent said side walls, flexible baffle means loosely wound around said post means in a zi,-zag fashion, said baffle means extending vertically from adjacent the bottom of said hold to above the free level of the liquid cargo, capstan means at one end of said hold, said baffle and means securing the other end of said baffle means at the other end of said hold, said capstan means beina adapted to tighten said baffle means after it is secured at said other end of the hold and said baffle means being adapted to be wound around said capstan means when the baffle means is not secured at said other end.

Classifications:

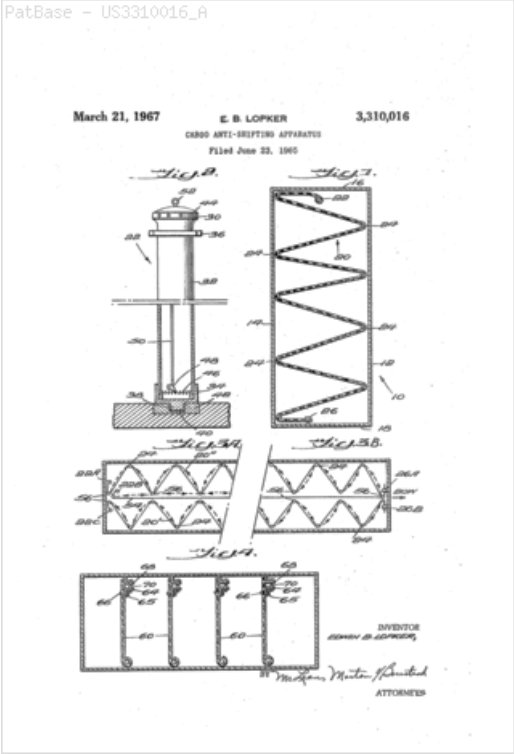
International (IPC 8-9): B63B25/08 (Advanced/Invention);
B63B25/00 (Core/Invention)

International (IPC 1-7): B63B25/24

CPC: B63B25/08

European: B63B25/08

US: 114/75



Family:

Publication number	Publication date	Application number	Application date
US3310016 A	19670321	US19650466276	19650623

Priority:

US19650466276 19650623

Probable Assignee:

A L MECHLING BARGE LINES INC

Assignee(s): (std):

A L MECHLING BARGE LINES INC

Inventor(s): (std):

LOPKER EDWIN B

Legal status (INPADOC)

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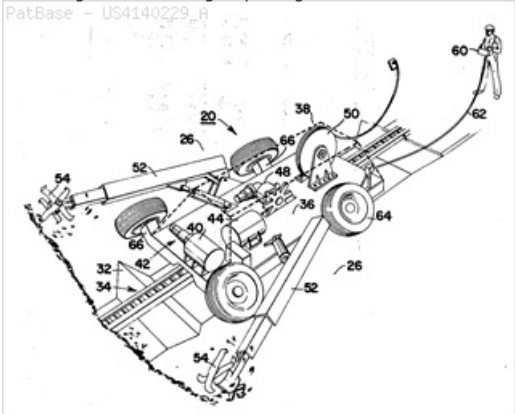
Patent	Date recorded	Event group	Code	Event	Details
US3310016 A	19670321	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: COAL CUTTER VEHICLE

Abstract: A reclaimer apparatus is positioned in an elongated bulk material containing hopper or **cargo hold** of the type having opposed side walls which slope downwardly and inwardly toward the hopper bottom, the latter having a series of longitudinally extending discharge openings therein for discharging the bulk material on to a conveyor running lengthwise of the hopper. The reclaimer apparatus includes a rigid frame adapted to be located above the discharge openings and means for propelling the frame along the hopper bottom. The reclaimer has cutters thereon adapted to cut through bulk material, such as coal, in planes lying generally parallel to and adjacent the sloping side walls whereby to undercut the bulk material and to cause same to cascade downwardly and along the side walls and through the discharge openings.

Classifications:

International (IPC 8-9): B63B27/22 B65D88/68 (Advanced/Invention); B65D88/00 (Core/Invention)
International (IPC 1-7): B63B27/22 B65G65/42
CPC: Y10S414/122 B65D88/68
European: B65D88/68
US: 214/17DA 299/74 414/142.3 414/308 414/518 414/909



Family:

Publication number	Publication date	Application number	Application date
CA1057227 A1	19790626	CA19770272940	19770301
US4140229 A	19790220	US19770790032	19770422

Priority:

CA19770272940 19770301

Probable Assignee: TIMBERLAND EQUIP LTD

Assignee(s): (std): TIMBERLAND EQUIP LTD

Assignee(s): TIMBERLAND EQUIPMENT LIMITED ; TIMBERLAND EQUIPMENT LTD ; BOOTH WALTER G ; POLE CHARLES D

Inventor(s): (std): BOOTH WALTER G ; POLE CHARLES D

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US4140229 A	19790220	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: PIVOTABLE CONVEYOR SKIRT BOARD ASSEMBLY

Abstract: A pivotable wall assembly for retaining material on a conveyor belt allows for the wall to be pivoted down for easy access to the inside surface of the wall. Numerous wall assemblies may be attached end to end in individually pivoted back. The easy access makes it quicker and safer to inspect the inside walls to make adjustments, and to remove or replace the liners, the walls and the conveyor idlers. The easy access reduces the man-hours of labor for inspections, adjustments and liner replacements reducing the cost of conveyor maintenance. The modular construction of the pivotable walls allows easy assembly and disassembly. The pivotable walls can be used with hoppers, or other material handling structures. The top and bottom walls have angled portions for engagement with each other to reduce noise, vibrations and dust resulting in less corrosion and wear on the system.

Classifications:

International (IPC 8-9): B32B13/06 B32B15/04 B63B B63B3/16 B63B3/20 B63B3/56 B63B5/00 B63B5/14 B63B5/20 B63B9/04 B65G15/40 B65G21/20 E04C2/28 E04C2/34

E04C2/54 (Advanced/Invention);

B63B5/14 (Advanced/Non-invention);

B32B13/00 B32B15/04 B63B3/00 B63B5/00 B63B9/00 B65G21/20

E04C2/26 E04C2/34 E04C2/54 (Core/Invention);

B63B5/00 (Core/Non-invention);

B63B (Subclass/Invention)

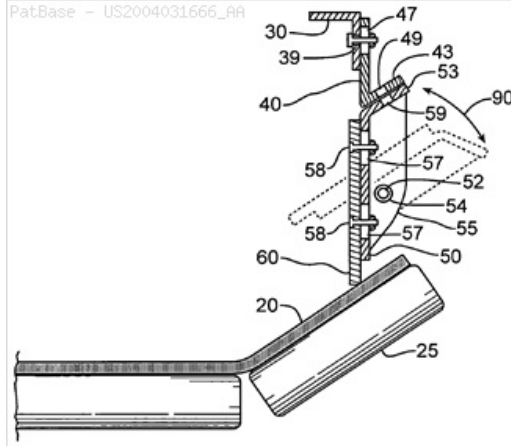
International (IPC 1-7): B32B13/06 B63B3/16 B63B5/14 B63B5/20 B63B9/04 B65C21/20 B65G15/40 B65G15/60 B65G21/20 B65G39/12 B65G47/18

CPC: B65G21/2081 B63B5/20 B63B3/16 B63B3/20 B63B3/56 B63B5/00 B63B9/04 B63B2231/62 E04C2/28 E04C2002/3455 B63B5/14 B32B3/28 B32B7/12 B32B13/06 B32B15/01 B32B37/0084 B32B2311/00 B32B2315/06 B32B2605/12 B32B15/04 E04C2/3405

European: B32B15/04 B63B3/16 B63B3/20 B63B3/56 B63B5/00 B63B5/20 B63B9/04 B65G21/20D2B1 E04C2/28 E04C2/34B L63B231/62 L63B5/14 P04C2/34B2B Y02T70/14B

US: 198/836.1 198/836.3 198/836.4 198/860.3 52/783.1 52/783.100 52/783.100P

PatBase - US2004031666_AA

**Family:**

Publication number	Publication date	Application number	Application date
AT446242 E	20091115	AT20030812393T	20031201
AU2003262226 AA	20050303	AU20030262226	20031113
AU2003262226 BB	20091119	AU20030262226	20031113
AU2003302662 AA	20040623	AU20030302662	20031201
CA2446066 AA	20050422	CA20032446066	20031022
CA2446066 C	20111115	CA20032446066	20031022
CN1745015 A	20060308	CN200380109380	20031201
DE10356013 A1	20050331	DE20031056013	20031127
DE60329784 D1	20091203	DE20036029784	20031201
EP1578660 A1	20050928	EP20030812393	20031201
EP1578660 B1	20091021	EP20030812393	20031201
GB200228081 A0	20030108	GB20020028081	20021130
GB200228083 A0	20030108	GB20020028083	20021130
GB200328081 A0	20040107	GB20030028081	20031203
GB2395689 A1	20040602	GB20020028081	20021130
GB2395689 B2	20060531	GB20020028081	20021130
GB2395690 A1	20040602	GB20020028083	20021130
GB2395690 B2	20060405	GB20020028083	20021130
GB2404907 A1	20050216	GB20030028081	20031203
GB2404907 B2	20061220	GB20030028081	20031203
HK1083088 A1	20100115	HK20060103070	20060309
HK1083088 A1	20060623	HK20060103070	20060309
HK1083088 A3	20060623	HK20060103070	20060309
HK1083088 B	20100115	HK20060103070	20060309
HK1089418 A1	20061201	HK20060109970	20060907
HK1089418 A3	20061201	HK20060109970	20060907
JP2006507984 T2	20060309	JP20040556997T	20031201
KR20050084055 A	20050826	KR20057009773	20031201
NO20053198 A	20050630	NO20050003198	20050630
NO20053198 A0	20050630	NO20050003198	20050630
NO20053198 L	20050630	NO20050003198	20050630
US2004031666 AA	20040219	US20030640528	20030813
US2006162279 AA	20060727	US20030536864	20031201
US6763935 BB	20040720	US20030640528	20030813
WO04050468 A1	20040617	WO2003N000401	20031201

Priority:

US20020403885P 20020816	GB20020028081 20021130	GB20020028083 20021130
US20030640528 20030813	CA20032446066 20031022	WO2003N000401 20031201
NO20050003198 20050630		

Probable Assignee: NELSON WILLIAMS LININGS INC

Assignee(s): (std): DET NORSKE VERITAS ; DET NORSKE VERITAS A S ; DET NORSKE VERITAS AS ; NELSON WILLIAMS LININGS INC ; OSTMAN ARTHUR C ; ARTHUR OSTMAN ; BERGAN PAAL G

Assignee(s): ARTHUR C OSTMAN ; NELSON WILLIAMS LININGS INC MT IRON

Inventor(s): (std): BERGAN PAAL G ; OSTMAN ARTHUR C ; ARTHUR C OSTMAN ; PAL G BERGAN ; BERGAN PAL G

Inventor(s): BERGAN PAL

Agent(s): GRIFFITH HACK; RIDOUT AND MAYBEE LLP; STEIN DRAEGER CHRISTIANE; CHINA PATENT AGENT HK

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 GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT446242 E	20091115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT446242 E	20100415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT446242 E	20231201	PEXP		Calculated Patent Term Expiry	
AU2003262226 AA	20050303	LSPB	+	published / reissued	
AU2003262226 BB	20091119	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2003262226 BB	20100401	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2003262226 BB	20190606	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2003262226 BB	20231113	PEXP		Calculated Patent Term Expiry	
AU2003302662 AA	20040623	LSPB	+	published / reissued	
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CA2446066 AA	20050422	LSPB	+	published / reissued	
CA2446066 AA	20080911	LSES	+EEER	EXAMINATION REQUEST	
CA2446066 C	20111115	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2446066 C	20231022	PEXP		Calculated Patent Term Expiry	
CN1745015 A	20060308	LSPB	+	published / reissued	
CN1745015 A	20060308	LSPB	+C06	PUBLICATION	
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CN1745015 A	20130628	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1089418 COUNTRY OF REF DOCUMENT : HK
DE10356013 A1	20050331	LSPB	+	published / reissued	
DE10356013 A1	20090827	LSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE10356013 A1	20130919	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20130601
DE60329784 D1	20101111	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
EP1578660 A1	20050928	LSPB	+	published / reissued	

EP1578660 A1	20050928	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20050629
EP1578660 A1	20060830	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20060731
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EP1578660 A1	20091030	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1578660 A1	20091111	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1578660 A1	20100115	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1083088 COUNTRY OF REF DOCUMENT : HK
EP1578660 A1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20091228 YEAR OF FEE PAYMENT : 7
EP1578660 A1	20100401	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
EP1578660 A1	20100430	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 : 20100222
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EP1578660 A1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20100108 YEAR OF FEE PAYMENT : 7
EP1578660 A1	20100531	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 : 20091021
EP1578660 A1	20100630	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 : 20091021
EP1578660 A1	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091021

EP1578660 A1	20100630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20100112 YEAR OF FEE PAYMENT : 7
EP1578660 A1	20100630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20100107 YEAR OF FEE PAYMENT : 7
EP1578660 A1	20100730	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 : 20100121
EP1578660 A1	20100730	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 : 20091021
EP1578660 A1	20100730	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 : 20091021
EP1578660 A1	20100730	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 : 20100701
EP1578660 A1	20100730	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 : 20091021
EP1578660 A1	20100730	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1578660 A1	20100831	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 DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091021
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EP1578660 A1	20100831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20091230 YEAR OF FEE PAYMENT : 7
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EP1578660 A1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : GR

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EP1578660 A1	20101029	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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20091201
EP1578660 A1	20101029	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 : 20091231
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EP1578660 A1	20110630	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 LAPSED DATE : 20100422
EP1578660 A1	20110824	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20101201
EP1578660 A1	20110831	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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20101201
EP1578660 A1	20110831	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 : 20091021
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EP1578660 A1	20110930	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 : 20091021
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EP1578660 A1	20111117	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60329784 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110701
EP1578660 A1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : GB NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20101201

EP1578660 A1	20111130	LSLE	-PG25	EPO] 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 : 20110701
EP1578660 A1	20111230	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 : 20101201
EP1578660 A1	20120928	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 : 20091021
EP1578660 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 20100201
EP1578660 B1	20091021	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1578660 B1	20231201	PEXP		Calculated Patent Term Expiry	
GB2395689 A1	20040602	LSPB	+	published / reissued	
GB2395689 B2	20060531	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2395689 B2	20110727	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20101130
GB2395689 B2	20221130	PEXP		Calculated Patent Term Expiry	
GB2395690 A1	20040602	LSPB	+	published / reissued	
GB2395690 B2	20060405	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2395690 B2	20110727	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20101130
GB2395690 B2	20140108	LSRV	-S73	REVOCATION ON COMPTROLLER'S INITIATIVE (SECTION 73/PATENTS ACT 1977)	TEXT : PATENT REVOKED; PATENT REVOKED UNDER SECTION 73(2) ON 13 DECEMBER 2013
GB2395690 B2	20221130	PEXP		Calculated Patent Term Expiry	
GB2404907 A1	20050216	LSPB	+	published / reissued	
GB2404907 B2	20061220	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2404907 B2	20130828	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20121203
GB2404907 B2	20231203	PEXP		Calculated Patent Term Expiry	
HK1083088 A1	20060623	LSPB	+	published / reissued	
HK1083088 A1	20100115	LSPB	+	published / reissued	
HK1083088 A1	20140627	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20131201
HK1083088 A1	20140627	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20131201
HK1083088 A1	20260309	PEXP		Calculated Patent Term Expiry	
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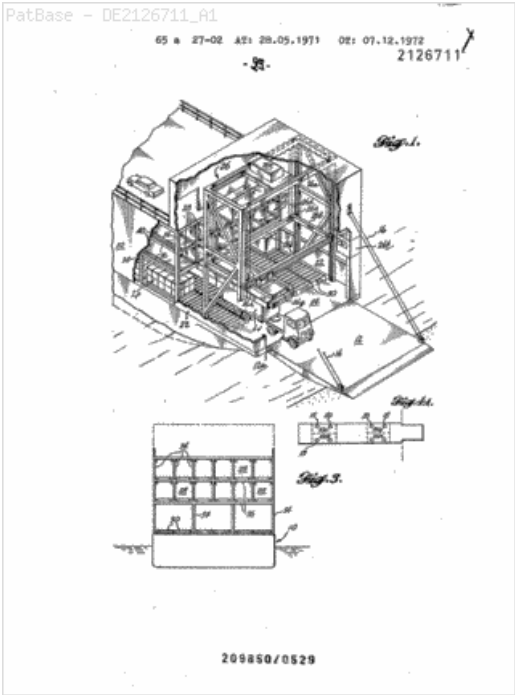
HK1083088 A3	20060623	LSPB	+	Term Expiry published / reissued	
HK1083088 B	20100115	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1083088 B	20260309	PEXP		Calculated Patent Term Expiry	
HK1089418 A1	20061201	LSPB	+	published / reissued	
HK1089418 A3	20061201	LSPB	+	published / reissued	
JP2006507984 T2	20060309	LSPB	+	published / reissued	
JP2006507984 T2	20061117	LSSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20061116
JP2006507984 T2	20090521	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090520
JP2006507984 T2	20090821	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090820
JP2006507984 T2	20100401	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100331
JP2006507984 T2	20100930	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20100929
KR20050084055 A	20050826	LSPB	+	published / reissued	
KR20050084055 A	20081201	LSSES	A201	REQUEST FOR EXAMINATION	
KR20050084055 A	20101127	LSSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20050084055 A	20110208	LSRV	-E601	DECISION TO REFUSE APPLICATION	
NO20053198 A	20050630	LSPB	+	published / reissued	
NO20053198 A	20110725	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
US2004031666 AA	20040219	LSPB	+	published / reissued	
US2004031666 AA	20040701	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006162279 AA	20060727	LSPB	+	published / reissued	
US2006162279 AA	20050816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DET NORSKE VERITAS, NORWAY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERGAN, PAAL; REEL/FRAME:017445/0766 EFFECTIVE DATE : 20050712
US2006162279 AA	20060117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DET NORSKE VERITAS, NORWAY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERGAN, PAAL; REEL/FRAME:018643/0482 EFFECTIVE DATE : 20050712
US2006162279 AA	20101023	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US6763935 BB	20040720	LSGT	+	granted / extensions (spc, cpc, pte)	
US6763935 BB	20040701	LSGT	PAT1	Patented Case	
US6763935 BB	20051115	LSRE	CC	CERTIFICATE OF CORRECTION	
US6763935 BB	20070320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NELSON WILLIAMS LININGS, INC., MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OSTMAN, ARTHUR C.; REEL/FRAME:019047/0145 EFFECTIVE DATE : 20020910

US6763935 BB	20071112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6763935 BB	20100820	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NELSON WILLIAMS LININGS, INC., MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OSTMAN, ARTHUR C.; REEL/FRAME:024850/0960 EFFECTIVE DATE : 20100817
US6763935 BB	20110817	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6763935 BB	20151002	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6763935 BB	20230813	PEXP		Calculated Patent Term Expiry	
WO04050468 A1	20040617	LSPB	+	published / reissued	
WO04050468 A1	20050527	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2006162279 COUNTRY OF REF DOCUMENT : US KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO04050468 A1	20050527	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10536864 COUNTRY OF REF DOCUMENT : US
WO04050468 A1	20050530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020057009773 COUNTRY OF REF DOCUMENT : KR
WO04050468 A1	20050530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004556997 COUNTRY OF REF DOCUMENT : JP
WO04050468 A1	20050629	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003812393 COUNTRY OF REF DOCUMENT : EP
WO04050468 A1	20050729	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 20038A93802 COUNTRY OF REF DOCUMENT : CN
WO04050468 A1	20050826	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020057009773 COUNTRY OF REF DOCUMENT : KR
WO04050468 A1	20050928	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003812393 COUNTRY OF REF DOCUMENT : EP
WO04050468 A1	20060727	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 10536864 COUNTRY OF REF DOCUMENT : US

Abstract: Source: DE2126711A1 [DE] (Claim 1) 1. Ladegeschirr und Ladeeinrichtung- fuer Frachtschiffe, g e k e n n z e 1 c h n e t durch ein offenes Verladedeck., das entfernt vom einen Ende des Schiffes angeordnet ist, durch einen in drei Rich tungen beweglichen Kran, der an dem Schiff ueber dem Verladedeck angeordnet ist, durch eine S3inrichtung zum Verladen von Frachtein heiten auf dem Verladedeck, durch eine Anzahl von laenglichen Spei cherzellen, deren Eintrittsoeffnungen angrenzend an das Verlade deck angeordnet sind, und sich davon in Laengsrichtung des Schiffes zu dem einen Ende davon erstrecken, wobei gewisse Zellen in unter schiedlichen Hoehenlagen angeordnet sind, und durch eine Frachtfoer dereinrichtung in mindestens einigen der Zellen., um Frachteinhei ten in Langsrichtung der Zellen zu und aus aufeinanderfolgenden Speicherlagen zu bewegen, welche Foerdereinrichtung in einem solchen Zusammenhang mit der Arbeitsweise des Krans steht, dass eine ueber tragung von Frachteinheiten durch den Kran zwischen dem Verlade deck und der Foerdereinrichtung durch die betreffenden Eintritts enden der Zellen moeglich ist

Machine translation: (Claim 1) 1 Cargo gear and charger-for cargo ships gekennze, 1 chnet through an open Verladedeck. That is remotely located from one end of the ship, by one in three directions mobile crane, the over is on the ship the Verladedeck arranged for by a S3inrichtung loading of Frachtein units on the Verladedeck, memory cells by a number of oblong memory whose Eintrittsoeffnungen are located adjacent deck to the loading, and this in Laengsrichtung of the vessel at one end of which extend, with some cells are arranged in at different altitudes, and move through a Frachtfoer dereinrichtung in at least some of the cells. to Frachteinhei th in the longitudinal direction of the cells and from consecutive memory locations, which Foerdereinrichtung in such a connection with the operation of the crane is that one about transfer of cargo units by crane between the loading deck and the Foerdereinrichtung by the relevant entry of the cells is possible

Classifications:
International (IPC 8-9): B63B27/00 B63B27/12 (Advanced/Invention); B63B27/00 (Core/Invention)
International (IPC 1-7): B63B27/02
CPC: B63B27/02
European: B63B27/02



Family:

Publication number	Publication date	Application number	Application date
DE2126711 A1	19721207	DE19712126711	19710528

Priority:

DE19712126711 19710528

Probable Assignee: ALLEN R

Assignee(s): (std) ALLEN R

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2126711 A1	19721207	LSPB	+	published / reissued	

Title: CARGO TRANSPORTER LOADING ASSEMBLY

Abstract: A cargo transporter loading assembly for loading bulk material onto a cargo transporter. The assembly includes a frame carrying a pivotally mounted boom. A distal end of the boom carries a head part encased by a cover and configured to prevent wind and rain ingress into the region between the boom and a **cargo hold** of a cargo transporter during bulk material loading.

Classifications:

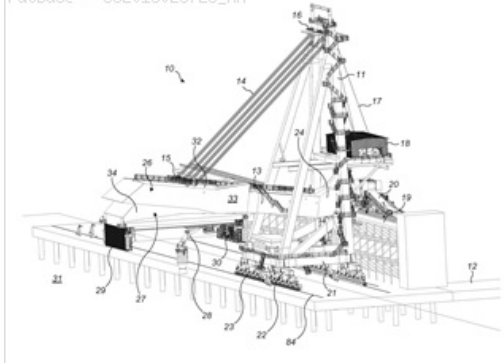
International (IPC 8-9): B63B19/14 B63B27/28 B65G21/08

B65G67/60 B65G69/00 B66C19/00 (Advanced/Invention)

CPC: B63B27/28 B65G67/60 B65G67/606 B66C19/00 B65G67/603

US: 414/141.8

PatBase - US2016023723_AA



Family:

Publication number	Publication date	Application number	Application date
CA2903034 AA	20150828	CA20142903034	20140314
CN105121314 A	20151202	CN201480016090	20140314
CN105121314 B	20171024	CN201480016090	20140314
CN107253621 A	20171017	CN201710418131	20140314
GB201515667 A0	20151021	GB20150015667	20140314
GB2532313 A1	20160518	GB20150015667	20140314
RU2015144173 A	20170425	RU20150144173	20140314
RU2015144173 A3	20180115	RU20150144173	20140314
RU2662104 C2	20180723	RU20150144173	20140314
US2016023723 AA	20160128	US20140775958	20140314
US9650113 BB	20170516	US20140775958	20140314
WO14140302 A1	20140918	WO2014EP55145	20140314

Priority:

US20130800766P 20130315 CN201480016090 20140314 RU20150144173 20140314
WO2014EP55145 20140314 US20140775958 20140314

Probable Assignee: FLSMIDTH A S

Assignee(s): (std): FLSMIDT AS ; SANDVIK INTELLECTUAL PROPERTY

Assignee(s): PLETZ RUDOLF ; VORAUER JOACHIM ; FLSMIDT A S ; FLSMIDTH A S ; HOCHEGGER FRANK ; SANDVIK INTELLECTUAL PROPERTY AB

Inventor(s): (std): FORAUER IOAKHIM ; KHOKHEGGER FRENK ; PLETS RUDOLF ; VORAUER JOACHIM ; PLETZ RUDOLF ; HOCHEGGER FRANK ; RUDOLF PLETZ ; JOACHIM VORAUER ; FRANK HOCHEGGER

Agent(s): GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; OOO YURIDICHESKAYA GORODISSKIY I PARTNER Y FA; CORINNE R; HAMMARSSJOE JOAKIM

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2903034 AA	20150828	LSPB	+	published / reissued	
CA2903034 AA	20190308	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190228
CN105121314 A	20151202	LSPB	+	published / reissued	
CN105121314 A	20151202	LSPB	+C06	PUBLICATION	
CN105121314 B	20171024	LSGT	+	granted / extensions (spc, cpc, pte)	
CN105121314 B	20171024	LSGT	+GR01	PATENT GRANT	
CN105121314 B	20180511	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN105121314 B	20340314	PEXP		Calculated Patent Term Expiry	
CN107253621 A	20171017	LSPB	+	published /	

reissued						
CN107253621 A	20171017	LSPB	PB01	PUBLICATION		
CN107253621 A	20180511	LSAS	TA01	TRANSFER OF PATENT APPLICATION RIGHT		
GB2532313 A1	20160518	LSPB	+	published / reissued		
RU2015144173 A	20170425	LSPB	+	published / reissued		
RU2015144173 A	20180427	LSAS	HZ9A	CHANGING ADDRESS FOR CORRESPONDENCE WITH AN APPLICANT		
RU2662104 C2	20180723	LSGT	+	granted / extensions (spc, cpc, pte)		
RU2662104 C2	20340314	PEXP		Calculated Patent Term Expiry		
US2016023723 AA	20160128	LSPB	+	published / reissued		
US2016023723 AA	20170426	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US9650113 BB	20170516	LSGT	+	granted / extensions (spc, cpc, pte)		
US9650113 BB	20151005	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SANDVIK INTELLECTUAL PROPERTY AB, SWEDEN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PLETZ, RUDOLF; REEL/FRAME:036722/0862 EFFECTIVE DATE : 20150907	
US9650113 BB	20151008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SANDVIK INTELLECTUAL PROPERTY AB, SWEDEN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VORAUER, JOACHIM; HOCHEGGER, FRANK; SIGNING DATES FROM 20150828 TO 20151008; REEL/FRAME:036755/0672	
US9650113 BB	20170414	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US9650113 BB	20170426	LSGT	PAT1	Patented Case		
US9650113 BB	20180314	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FLSMIDTH A/S, DENMARK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SANDVIK INTELLECTUAL PROPERTY AB; REEL/FRAME:045207/0144 EFFECTIVE DATE : 20180202	
US9650113 BB	20340314	PEXP		Calculated Patent Term Expiry		
WO14140302 A1	20140918	LSPB	+	published / reissued		
WO14140302 A1	20150828	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2903034 COUNTRY OF REF DOCUMENT : CA	
WO14140302 A1	20150904	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	TEXT : PCT FILING DATE = 20140314 REF DOCUMENT NUMBER : 201515667 COUNTRY OF REF DOCUMENT : GB KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :	
WO14140302 A1	20150904	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1515667.2 COUNTRY OF REF DOCUMENT : GB	
WO14140302 A1	20150914	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14775958 COUNTRY OF REF DOCUMENT : US	
WO14140302 A1	20150915	LSNE	NENP	NON-ENTRY INTO	REF COUNTRY CODE : DE	

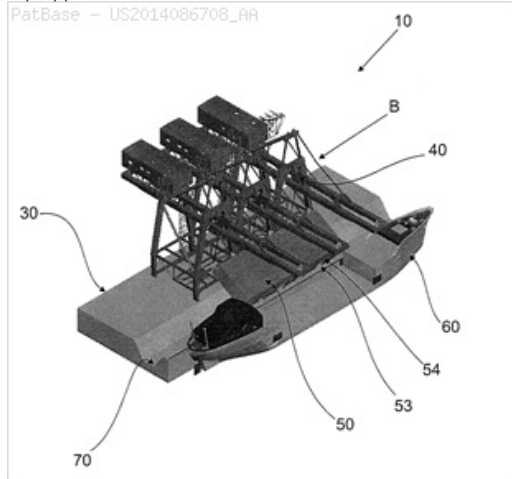
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WO14140302 A1	20151015	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : A20150493 COUNTRY OF REF DOCUMENT : BY
WO14140302 A1	20160406	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 14710868 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: EQUIPMENT FOR UNLOADING BULK FREIGHTER AND BULK CARRIER

Abstract: There is described an equipment for unloading a bulk carrier, comprising a plurality of structures fastened to a fixed platform, the plurality of structures is fastened to the fixed platform mutually parallel, each structure comprising a mobile element endowed with fastening elements which are associated to a projection of at least a removable hold of a bulk carrier, the mobile element being displaced from a first position (A) to a second position (B) so as to tilt at least a removable hold onto an apron feeder and then to a system of **conveyor belts**. There is also described a bulk carrier, comprising at least a removable hold which consists of a compartment for transporting bulk products, endowed with a plurality of projections disposed in a longitudinal line and mutually parallel at a first end of the removable hold and an articulation mechanism disposed along a second end of the removable hold parallelly opposite the first end.

Classifications:

International (IPC 8-9): B63B25/02 B63B25/04 B63B25/18
B63B27/12 B63B27/22 B65G65/00 B65G65/23 B65G67/60
B66C19/00 B66C3/00 (Advanced/Invention);
B63B25/18 (Advanced/Non-invention);
B66C19/00 B66C3/00 (Core/Invention)
CPC: B65G67/606 B63B25/04 B63B25/18 B63B27/12 B63B27/22
B66C3/00 B66C19/00
US: 1/1 114/73 414/137.1



Family:

Publication number	Publication date	Application number	Application date
AP201508319 A0	20150331	AP20150008319	20130801
AR092867 AA	20150506	AR2013P103060	20130828
BR112015006340 A2	20170822	BR20151106340	20130801
CA2885491 AA	20150319	CA20132885491	20130801
PH2015500607 A	20150727	PH20150500607	20150319
PH2015500607 B	20150727	PH20150500607	20150319
TW201412628 A	20140401	TW20130129531	20130816
TWI588080 B	20170621	TW20130129531	20130816
US2014086708 AA	20140327	US20130962734	20130808
US9216865 BB	20151222	US20130962734	20130808
WO14043772 A1	20140327	WO2013BR00277	20130801

Priority:

US20120704365P 20120921 WO2013BR00277 20130801 US20130962734 20130808

Probable Assignee: VALE SA

Assignee(s): (std): DE FREITAS TERTULIANO FRANCISCO ; FRANCISCO DE FREITAS TERTULIANO ; FREITAS TERTULIANO FRANCISCO DE ; SANTOS WARLEY SOARES ; VALE SA ; VALE S A ; SOARES SANTOS WARLEY

Inventor(s): (std): DE FREITAS TERTULIANO FRANCISCO ; SANTOS WARLEY SOARES ; FREITAS TERTULIANO FRANCISCO DE ; TERTULIANO FRANCISCO DE FREITAS ; WARLEY SOARES SANTOS ; FRANCISCO DE FREITAS TERTULIANO ; SOARES SANTOS WARLEY

Agent(s): MOFFAT AND CO; ARENT FOX LLP; VEIRANO E ADVOGADOS ASSOCIADOS

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR092867 AA	20150506	LSPB	+	published / reissued	
CA2885491 AA	20150319	LSPB	+	published / reissued	
CA2885491 AA	20180419	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20180412
PH2015500607 A	20150727	LSPB	+	published / reissued	
PH2015500607 B	20150727	LSGT	+	granted / extensions (spc, cpc, pte)	
TW201412628 A	20140401	LSPB	+	published / reissued	

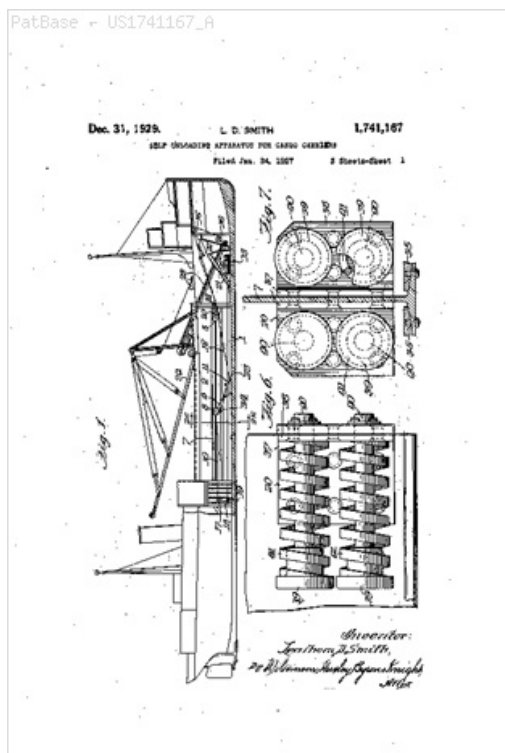
TWI588080 B	20170621	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI588080 B	20330816	PEXP		Calculated Patent Term Expiry	
US2014086708 AA	20140327	LSPB	+	published / reissued	
US2014086708 AA	20140425	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VALE S.A., BRAZIL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DE FREITAS, TERTULIANO FRANCISCO; SANTOS, WARLLEY SOARES; REEL/FRAME:032762/0341 EFFECTIVE DATE : 20140415
US2014086708 AA	20151202	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9216865 BB	20151222	LSGT	+	granted / extensions (spc, cpc, pte)	
US9216865 BB	20151116	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9216865 BB	20151202	LSGT	PAT1	Patented Case	
US9216865 BB	20170913	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VALE S.A., BRAZIL OLDPARTY : CHANGE OF ADDRESS; ASSIGNOR:VALE S.A.; REEL/FRAME:043849/0613 EFFECTIVE DATE : 20170913
US9216865 BB	20190618	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9216865 BB	20331023	PEXP		Calculated Patent Term Expiry (PTA 76 days)	
WO14043772 A1	20140327	LSPB	+	published / reissued	
WO14043772 A1	20150319	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2885491 COUNTRY OF REF DOCUMENT : CA
WO14043772 A1	20150319	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12015500607 COUNTRY OF REF DOCUMENT : PH
WO14043772 A1	20150323	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14043772 A1	20151014	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 13749974 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO14043772 A1	20170822	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112015006340 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20150320

Title: SELF-UNLOADING APPARATUS FOR CARGO CARRIERS

Abstract: Vessels, trough and tunnel systems for emptying. In arrangements for unloading bulk cargo from a ship's hold, particularly a hold provided with sub-cargo tunnels in which operate conveyers, the side inclines directing the flow of material to the tunnels terminate in drop-off walls located between the ends of the inclines and the bottom of the tunnel. The conveyor tunnels are roofed in by inclined members 3 which direct the cargo to the space 4 from which it is directed to the tunnels by a centre slope 5. Both this slope and the lateral inclines 6 terminate in drop-off walls bounding the sides of the tunnels. The scrapers 11 which operate in the tunnels are of the shape shown in Fig. 3. with an open digging-end terminating in deflecting shoes 28, the horse-shoe shaped rear having an upwardly and forwardly inclined portion 32. The scrapers are operated by cables 12, 10 the latter being a back haul cable which is supported by a trolley 8 running on a T-beam track 7. The cables are led over suitable guide pulleys to a winding-engine 13. The forward movement of the trolley is arrested by a bumper 20 comprising buffer heads 39, Fig. 6, with rearwardly extending shanks 40 on which are threaded springs 41. During the lengthening of the return loop 9, the scraper passes up the incline 21, deposits the load into the hopper 22, and, when the cable is drawn in the opposite direction, the return loop is taken up until the scraper approaches the trolley and is lifted over the material to be handled during the return stroke. From the dumping hopper, the material is carried by the endless-belt conveyor 23 to a second conveyor 24.

Classifications:**International (IPC 8-9):** B63B27/22 (Advanced/Invention);

B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/02 B65G67/58**CPC:** B63B27/22**European:** B63B27/22**US:** 37/398 414/142.9**Family:**

Publication number	Publication date	Application number	Application date
DE492210 A	19300220		00000000
GB284196 A	19280517	GB19270007593	19270318
NL23976 C	00000000		00000000
US1741167 A	19291231	US19270162972	19270124

Priority:

US19270162972 19270124

Probable Assignee: LEATHEM DALEY SMITH**Assignee(s):** (std): LEATHEM DALEY SMITH ; SMITH LEATHEM D**Inventor(s):** (std): SMITH LEATHEM D**Legal status (INPADOC)**[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE492210 A	19300220	LSGT	+	granted / extensions (spc, cpc, pte)	
GB284196 A	19280517	LSGT	+	granted / extensions (spc, cpc, pte)	
GB284196 A	19470318	PEXP		Calculated Patent Term Expiry	
NL23976 C	00000000	LSGT	+	granted / extensions (spc, cpc, pte)	
US1741167 A	19291231	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Floating structure for the transfer of cargo

Abstract: A transshipper for the transfer of cargo from a barge to a ship or elsewhere comprises a pair of buoyant vessels, a platform supported by the buoyant vessels in a raised position above the buoyant vessels through a plurality of vertical columns connecting the platform to the buoyant vessels. In one embodiment the buoyant vessels are provided with ballast chambers for receiving water as ballast inside the buoyant members. In another embodiment the transshipper is further provided with a lifting conveyor for raising material to be unloaded from a barge to the platform. Winches are provided for raising and lowering the lifting conveyor relative to the barge.

Classifications:

International (IPC 8-9): B63B1/10 B63B27/22 B63B27/30
B65G67/60 (Advanced/Invention);

B63B1/00 B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B63B27/30 B63B35/44
B65G67/60

CPC: B63B1/107 B63B27/22 B63B27/30

European: B63B1/10C B63B27/22 B63B27/30

US: 414/138.1 414/138.4 414/138.5 414/138.6

PatBase - US6010295_A

U.S. Patent

Jan. 4, 2009

Sheet 1 of 13

6,010,295

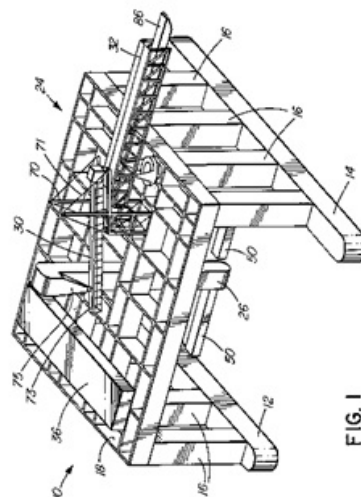


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
CA2266169 AA	19990919	CA19992266169	19990317
CA2266169 C	20040406	CA19992266169	19990317
CN1115280 C	20030723	CN19991004161	19990319
CN1237523 A	19991208	CN19991004161	19990319
US6010295 A	20000104	US19980044152	19980319

Priority:

US19980044152 19980319

CA19992266169 19990317

Probable Assignee:

SEMISUB TRANSSHIPPERS INC

Assignee(s): (std):

SEMISUB TRANSSHIPPERS INC

Assignee(s):

SRIDHAR SIDNEY

Inventor(s): (std):

SRIDHAR SIDNEY

Inventor(s):

SIDNEY SRIDHAR

Agent(s):

BORDEN LADNER GERVAIS LLP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2266169 AA	19990919	LSPB	+	published / reissued	
CA2266169 AA	19990825	LSES	+EEER	EXAMINATION REQUEST	
CA2266169 C	20040406	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2266169 C	20160428	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20160317
CA2266169 C	20190317	PEXP		Calculated Patent Term Expiry	
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CN1115280 C	20030723	LSGT	+C14	GRANT OF	

				PATENT OR UTILITY MODEL	
CN1115280 C	20160511	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN1115280 C	20190319	PEXP		Calculated Patent Term Expiry	
CN1237523 A	19991208	LSPB	+	published / reissued	
CN1237523 A	19991208	LSPB	+C06	PUBLICATION	
US6010295 A	20000104	LSGT	+	granted / extensions (spc, cpc, pte)	
US6010295 A	19980608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEMISUB TRANSSHIPPERS INC., BARBADOS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SRIDHAR, SIDNEY; REEL/FRAAME:009237/0336 EFFECTIVE DATE : 19980528
US6010295 A	19991223	LSGT	PAT1	Patented Case	
US6010295 A	19991223	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6010295 A	20030123	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6010295 A	20070222	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6010295 A	20110314	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6010295 A	20180319	PEXP		Calculated Patent Term Expiry	

Title: BULK CARRIER

Abstract: 1396670 Loading bulk carriers WESER AG 17 Sept 1973 [15 Sept 1972] 43561/72 Heading B8E A bulk carrier ship has a plurality of **cargo holds** and is provided with a longitudinally extending conveyer housed in a tunnel adjacent the upper deck of the ship, the conveyer extending over all the holds. Deflectors are provided for deflecting bulk material on to the holds. A conveyer may be provided on each side of the ship and extend to a discharge device adjacent one end of the ship.

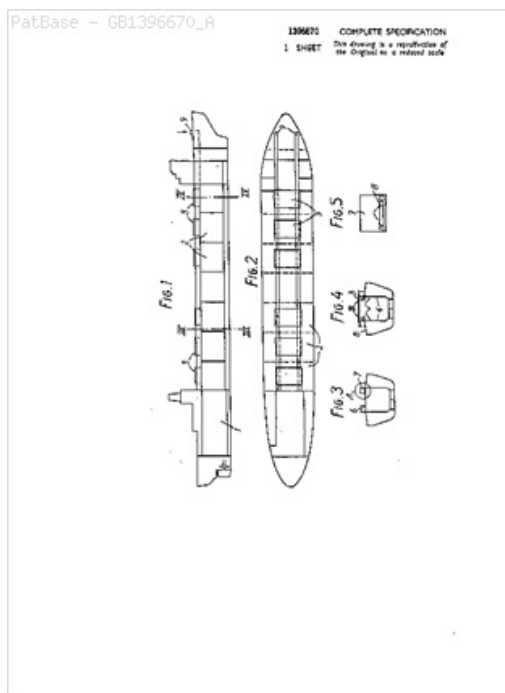
Classifications:

International (IPC 8-9): B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/00 B63B27/20

CPC: B63B27/22

European: B63B27/22



Family:

Publication number	Publication date	Application number	Application date
DE2245266 A1	19740321	DE19722245266	19720915
GB1396670 A	19750604	GB19730043561	19730917

Priority:

DE19722245266 19720915

Probable Assignee: WESER AG

Assignee(s): (std): WESER AG

Assignee(s): AKTIEN GESELLSCHAFT WESER 2800 BREMEN

Inventor(s): (std): DOERGELOH HERBERT

Inventor(s): DOERGELOH HERBERT 2800 BREMEN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2245266 A1	19740321	LSPB	+	published / reissued	
DE2245266 A1	19780706	LSLE	-OHJ	NON-PAYMENT OF THE ANNUAL FEE	
GB1396670 A	19750604	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1396670 A	19751015	LSGT	+PS	PATENT SEALED	
GB1396670 A	19790419	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	
GB1396670 A	19930917	PEXP		Calculated Patent Term Expiry	

Title: SELF-UNLOADING SHIP

Abstract: 1. In a self-unloading vessel, the combination of a **cargo hold** having a hopper bottom with a plurality of discharge openings and a longitudinally extending ridge, a tunnel beneath said ridge, a conveyor extending longitudinally in said tunnel, means extending near said openings for supporting material flashcharged therethrough in substantially a condition of repose adjacent said conveyor, a scraping device having an angularly disposed deliacting portion, and means for moving said scraping device along said tunnel for deliacting the material laterally of said supporting means onto said conveyor.

Classifications:

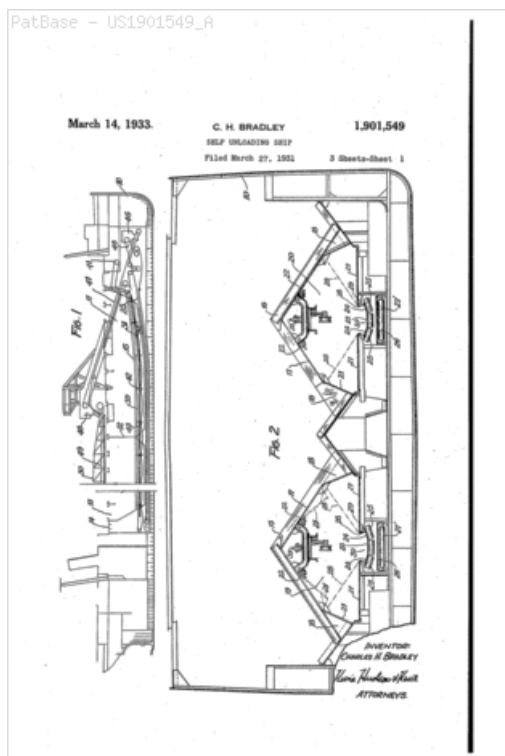
International (IPC 8-9): B63B27/22 (Advanced/Invention);
B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/22

CPC: B63B27/22

European: B63B27/22

US: 414/142.4



Family:

Publication number	Publication date	Application number	Application date
US1901549 A	19330314	US19310525788	19310327

Priority:

US19310525788 19310327

Probable Assignee: AMERICAN SHIP BUILDING CO

Assignee(s): (std): AMERICAN SHIP BUILDING CO ; AMERICAN SHIP BUILDING COMPANY

Assignee(s): THE AMERICAN SHIP BUILDING COMPANY

Inventor(s): (std): BRADLEY CHARLES H

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US1901549 A	19330314	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: SHIP LOADING SYSTEM

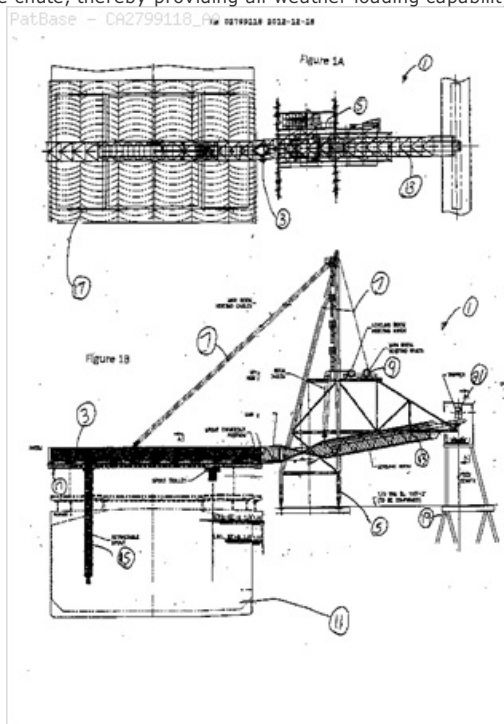
Abstract: A ship loading system, having a movable boom section with an internal **conveyor belt** attached to a frame section, for carrying material to be loaded into a hold of a vessel. A cargo discharge chute positioned on the boom section discharges materials received from the boom section into the hold of the vessel, and a selectively retractable cover extends over the boom section, the hold of the vessel and the cargo discharge chute, thereby providing all-weather loading capability.

Classifications:

International (IPC 8-9): B63B19/14 B65G21/08 B65G67/60

B65G69/00 (Advanced/Invention)

CPC: B63B19/14 B63B27/22 B65G67/606



Family:

Publication number	Publication date	Application number	Application date
CA2799118 AA	20140618	CA20122799118	20121218

Priority:

CA20122799118 20121218

Probable Assignee:

EMS TECH INC

Assignee(s): (std):

EMS TECH INC

Assignee(s):

SORENSEN PETER B

Inventor(s): (std):

SORENSEN PETER B

Agent(s):

SHAPIRO COHEN LLP; MILTONS IP PI

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2799118 AA	20140618	LSPB	+	published / reissued	
CA2799118 AA	20161222	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20161215
CA2799118 AA	20190813	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20190702

Title: Large capacity wing loader and unloader apparatus for cargo ships

Abstract: Portable cargo loading apparatus capable of being placed into the hold of a ship for loading and unloading cargo respectively to and from the wing areas of the hold. Comprising the apparatus is a loading section formed of three large area relatively slidable trays arranged in a nesting relation capable of being power extended and retracted in a controlled operating sequence. During tray extension, cargo which has for example been delivered by a dockside crane directly into the uppermost tray is relocated by the apparatus from the delivery location for placement into a paired loading site within the wing. After loading of a localized wing site is completed, a transport section is operable to enable incremental lateral displacement of the loading section to a new paired location relatively juxtaposed to the wing site in which loading was just completed. Forming the transport section is a pair of spaced apart transversely extending and relatively displaceable beams of length at least twice the width of the loading section. An adjustment at each distal end of the beams enables the loading section to be elevated and laterally displaced along the beams to a successively new loading site. A power section including an electrical generator unit, pumps and controls enables the entire apparatus to be operatively self sufficient.

Classifications:

International (IPC 8-9): B63B27/00 B63B27/16

B65G67/60 (Advanced/Invention);

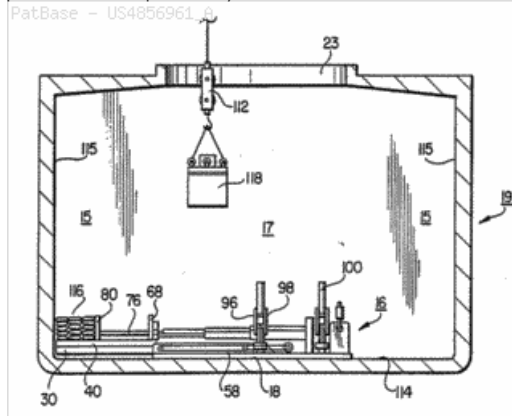
B63B27/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/16 B65G67/60

CPC: B63B27/02

European: B63B27/02

US: 414/137.1 414/141.7 414/497 414/661 414/749 414/794.3



Family:

Publication number	Publication date	Application number	Application date
US4856961 A	19890815	US19870032774	19870331

Priority:

US19870032774 19870331

Probable Assignee:

SHELL MELVIN E

Assignee(s): (std):

SHELL MELVIN E

Inventor(s): (std):

SHELL MELVIN E

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US4856961 A	19890815	LSGT	+	granted / extensions (spc, cpc, pte)	
US4856961 A	19890628	LSGT	PAT1	Patented Case	
US4856961 A	19920930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4856961 A	19970817	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4856961 A	19971028	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19970820
US4856961 A	20180130	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4856961 A	20180130	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

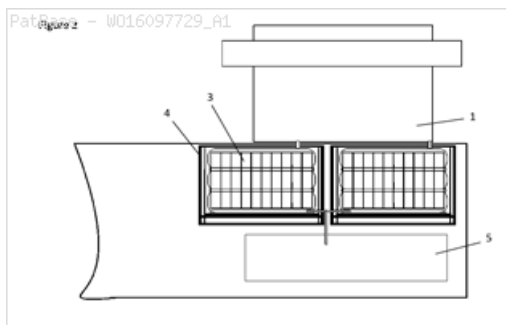
Title: COMPRESSIBLE FLUID STORAGE APPARATUS

Abstract: Provided is a compressible fluid storage apparatus suitable for a ship's Hold. The apparatus comprises a plurality of compressible and fluid-impermeable compartments. The apparatus also comprises a compression mechanism to compress each compartment. Methods of use are also provided.

Classifications:

International (IPC 8-9): B63B25/08 B63B25/12 B63B25/16 B63J2/14 B65D88/78 F17C3/02 (Advanced/Invention)

CPC: B63B25/16 B63B25/08 B63B25/12 B63B2025/022 B63B2025/087 B63J2/14 F17C3/025 F17C2203/0614 F17C2203/0663 F17C2203/0685 F17C2205/0107 F17C2270/0105 Y02T70/72 F17C3/02 F17C2201/0176 F17C2201/054 F17C2205/013 F17C2260/016 F17C2260/018



Family:

Publication number	Publication date	Application number	Application date
GB201711064 A0	20170823	GB20170011064	20151216
GB2548530 A1	20170920	GB20170011064	20151216
WO16097729 A1	20160623	WO2015GB54039	20151216

Priority:

GB20140022411 20141216 WO2015GB54039 20151216

Probable Assignee: EXAGENICA RES LTD

Assignee(s): (std): EXAGENICA RES LTD

Assignee(s): EXAGENICA RESEARCH LTD

Inventor(s): (std): WATKINS RHYS ; WALSH JOHN ; RHYS WATKINS ; JOHN WALSH

Agent(s): ICELY DOMINIC

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
GB2548530 A1	20170920	LSPB	+	published / reissued	
WO16097729 A1	20160623	LSPB	+	published / reissued	
WO16097729 A1	20170616	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16097729 A1	20170710	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	TEXT : PCT FILING DATE = 20151216 REF DOCUMENT NUMBER : 201711064 COUNTRY OF REF DOCUMENT : GB KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO16097729 A1	20180110	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 15813538 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: CONVEYING APPARATUS FOR LOADING AND UNLOADING GOODS, IN PARTICULAR FOR USE WITH SHIPS

Abstract: A conveying apparatus for loading and unloading goods, in particular for use with ships, comprises a cage for transferring the goods. The cage is displaceable in vertical height by a hoist and is formed as a lift cage guided in a substantially vertical lift shaft having an encasement and forming part of a cage lift. The cage lift is provided with a lower loading and unloading point and an upper loading and unloading connected to a further conveyor having an encasement.

Classifications:

International (ipc 8-9): B65G47/52 B65G47/57 B65G63/00 B65G67/60 B66B17/16 B66C19/00 (Advanced/Invention); B65G47/52 B65G47/56 B65G63/00 B65G67/00 B66B17/00 B66C19/00 (Core/Invention)

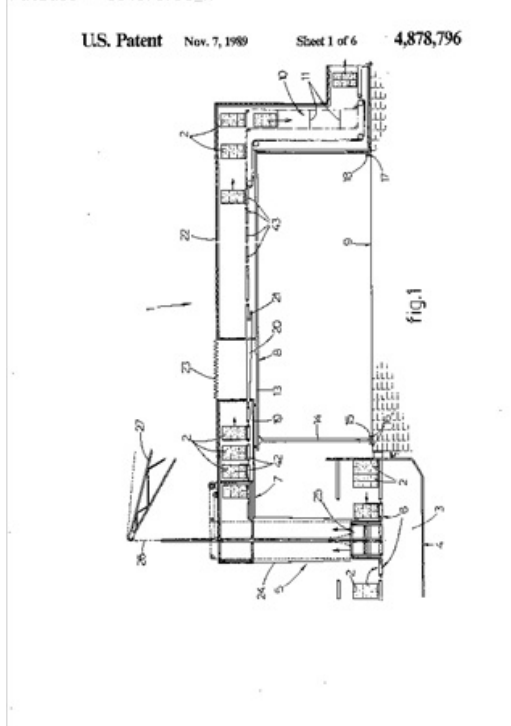
International (ipc 1-7): B63B27/16 B63B27/22 B65G47/52 B65G47/57 B65G63/00 B65G67/60 B66B17/16 B66C19/00

CPC: B65G67/603

European: B65G67/60A

US: 198/463.3 414/140.8 414/141.7 414/142.8

PatBase - US4878796_R



Family:

Publication number	Publication date	Application number	Application date
AT63287 E	19910515	AT19880200276T	19880216
CN1012266 B	19910403	CN19881001106	19880302
CN88101106 A	19880928	CN19881001106	19880302
DE3862655 D1	19910613	DE19883862655	19880216
EP0281181 A1	19880907	EP19880200276	19880216
EP0281181 B1	19910508	EP19880200276	19880216
ES2022587 B3	19911201	ES19880200276T	19880216
JP1022717 A2	19890125	JP19880050548	19880303
JP64022717 A2	19890125	JP19880050548	19880303
KR19880010976 A	19881025	KR19880001527	19880215
NL8700511 A	19881003	NL19870000511	19870303
SU1711666 A3	19920207	SU19884355311	19880302
US4878796 A	19891107	US19880162162	19880229

Priority:

NL19870000511 19870303 EP19880200276 19880216 EP19880200276 19880216

Probable Assignee: WEIMAR NV

Assignee(s): (std): WEIMAR A NETHERLANDS ANTIL NV ; AMMERAAL THOMAS C M ; MEIMAR N V ; WEIMAR NV ; WEIMAR N V A NETHERLANDS ANTILLES COMPANY

Assignee(s): WEIMAR TE WILLEMSTAD NEDERLANDSE ANTILLEN NV ; WEIMAR N V TE WILLEMSTAD NEDERLANDSE ANTILLEN ; VEJMAR FIRMA NV ; VEJMAR N V FA ; WEIMAR N V A NETHERLANDS ANTILLES CO ; WEIMAR N V ; WEIMAR N V A NETHERLANDS ANTILLES CO WORMERVEER ; WEIMAR N V A NETHERLANDS ANTILLES CO WORMERVEER NL ; VEJMAR N V FIRMA ; WEIMAR A NETHERLANDS ANTILLES COMPANY NV ; WEIMAR A NETHERLANDS ANTILLES CO WORMERVEER NL NV

Inventor(s): (std): MARIA AMMERAAL THOMAS CORNELIS ; MARIA AMMERALL THOMAS CORNELIS ; AMMEDAL TOMAS KORNELIS MARIYA ; AMMERAAL THOMAS CORNELIS MARIA ; AMMERAAL THOMAS C M

Inventor(s): AMMERAAL THOMAS CORNELIS MARIA NL 1531 AN WORMER N ; AMMERAAL THOMAS CORNELIS MARIA NL 1531 AN WORMER NL ; TOMAS KORNELIS MARIYA AMMEDAL NL ; AMMERALL THOMAS CORNELIS MARIA

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT63287 E	19910515	LSGT	+	granted / extensions (spc, cpc, pte)	

AT63287 E	20080216	PEXP		Calculated Patent Term Expiry	
CN1012266 B	19910403	LSPB	+	published / reissued	
CN1012266 B	19910403	LSSES	GR02	审定 (Approved patent application)	TEXT : 审定 (APPROVAL)
CN1012266 B	19911218	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1012266 B	19911218	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN1012266 B	19960417	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE	
CN1012266 B	19960417	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT : 专利权的终止未缴年费专利权终止 (ANY CESSATION TERMINATION OF PATENT RIGHT DUE TO FAILURE TO PAY ANNUAL FEE)
CN88101106 A	19880928	LSPB	+	published / reissued	
CN88101106 A	19880928	LSPB	+C06	PUBLICATION	
CN88101106 A	19880928	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
DE3862655 D1	19920507	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE3862655 D1	19940505	LSRV	-8331	COMPLETE REVOCATION	
EP0281181 A1	19880907	LSPB	+	published / reissued	
EP0281181 A1	19890607	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19890307
EP0281181 A1	19900613	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19900503
EP0281181 A1	19910502	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : WEIMAR N.V. (A NETHERLANDS ANTILLES COMPANY)
EP0281181 B1	19910508	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0281181 B1	19910809	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 : 19910809
EP0281181 B1	19920108	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 19920108 YEAR OF FEE PAYMENT : 5
EP0281181 B1	19920217	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 19920217 YEAR OF FEE PAYMENT : 5
EP0281181 B1	19920229	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 : 19920229
EP0281181 B1	19920229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 19920229 YEAR OF FEE PAYMENT : 5
EP0281181 B1	19920401	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : VOEST-ALPINE BERGTECHNIK GESELLSCHAFT M.B.H. EFFECTIVE DATE : 19920206
EP0281181 B1	19920401	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : O & K ORENSTEIN & KOPPEL AKTIENGESELLSCHAFT, BERLI EFFECTIVE DATE : 19920207

EP0281181 B1	19920601	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	PARTYTYPE : OPPONENT REF COUNTRY CODE : EP OPPONENT : VOEST-ALPINE BERGTECHNIK GESELLSCHAFT M.B.H.
EP0281181 B1	19920601	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	PARTYTYPE : OPPONENT REF COUNTRY CODE : EP OPPONENT : O & K ORENSTEIN & KOPPEL AKTIENGESELLSCHAFT
EP0281181 B1	19930205	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 19930205 YEAR OF FEE PAYMENT : 6
EP0281181 B1	19930208	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19930208 YEAR OF FEE PAYMENT : 6
EP0281181 B1	19930217	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE LAPSED DATE : 19930217
EP0281181 B1	19930218	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 19930218 YEAR OF FEE PAYMENT : 6
EP0281181 B1	19930225	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19930225 YEAR OF FEE PAYMENT : 6
EP0281181 B1	19930226	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 19930226 YEAR OF FEE PAYMENT : 6
EP0281181 B1	19930228	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 : 19930228
EP0281181 B1	19930228	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 : 19930228
EP0281181 B1	19930430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19930430 YEAR OF FEE PAYMENT : 6
EP0281181 B1	19930901	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19930901
EP0281181 B1	19931018	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP
EP0281181 B1	19931029	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0281181 B1	19940330	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 19931112
EP0281181 B1	19940330	LSRV	-GBPR	GB: PATENT REVOKED UNDER ART. 102 OF THE EP CONVENTION DESIGNATING THE UK AS CONTRACTING STATE	REF COUNTRY CODE : EP TEXT : 931112
EP0281181 B1	19950131	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP TEXT : 88200276.9 EFFECTIVE DATE : 19930912
EP0281181 B1	20080216	PEXP		Calculated Patent Term Expiry	

ES2022587 B3	19911201	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2022587 B3	20080216	PEXP		Calculated Patent Term Expiry	
JP1022717 A2	19890125	LSPB	+	published / reissued	
JP64022717 A2	19890125	LSPB	+	published / reissued	
KR19880010976 A	19881025	LSPB	+	published / reissued	
KR19880010976 A	19930213	LSES	A201	REQUEST FOR EXAMINATION	
KR19880010976 A	19970430	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19880010976 A	19970719	LSRV	-E601	DECISION TO REFUSE APPLICATION	
NL8700511 A	19881003	LSPB	+	published / reissued	
NL8700511 A	19931101	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED	
SU1711666 A3	19920207	LSGT	+	granted / extensions (spc, cpc, pte)	
US4878796 A	19891107	LSGT	+	granted / extensions (spc, cpc, pte)	
US4878796 A	19880428	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WEIMAR N.V., 16 PIETERMAAI, WILLEMSTAD, CURACAO, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:AMMERAAL, THOMAS C. M.; REEL/FRAME:004867/0598 EFFECTIVE DATE : 19880317
US4878796 A	19880428	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WEIMAR N.V.,NETHERLANDS ANTILLES OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:AMMERAAL, THOMAS C. M.; REEL/FRAME:004867/0598 EFFECTIVE DATE : 19880317
US4878796 A	19890912	LSGT	PAT1	Patented Case	
US4878796 A	19930721	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4878796 A	19971109	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4878796 A	19980120	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19971112
US4878796 A	20180130	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4878796 A	20180130	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4878796 A	20080229	PEXP		Calculated Patent Term Expiry	

Title: Discharge gate device for bulk cargo hoppers, particularly hoppers in bulk cargo vessels

Abstract: In a discharge gate arrangement for cargo hoppers for bulk cargo, a cover is guided for sliding in its own plane between a closed and an open position. The cover is also mounted for movement towards and away from the plane of the discharge opening at the end of the closing movement and the beginning of the opening movement, respectively. In the closed position the cover presses against a gasket laid around the opening, providing a gas- and liquid-tight seal.

Classifications:

International (IPC 8-9): B63B25/02 B65D88/26

B65D90/58 (Advanced/Invention);

B63B25/00 B65D90/00 (Core/Invention)

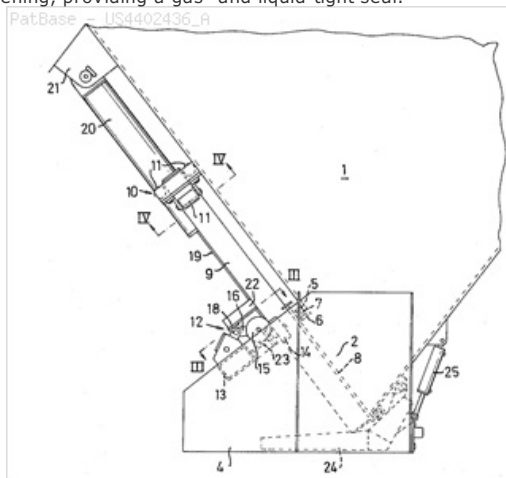
International (IPC 1-7): B63B25/02 B65D47/00 B65D88/26

B65D90/54 B65D90/58 B65G65/52

CPC: B65D90/587

European: B65D90/58C

US: 105/304 222/559 222/561 49/209



Family:

Publication number	Publication date	Application number	Application date
CA1169394 A1	19840619	CA19810381391	19810709
JP1591194 C3	19901130	JP19810107172	19810710
JP2017437 B4	19900420	JP19810107172	19810710
JP57046793 A2	19820317	JP19810107172	19810710
SE422311 B	19820301	SE19800005082	19800710
SE422311 C	19820610	SE19800005082	19800710
SE8005082 A	19820111	SE19800005082	19800710
SE8005082 L	19820111	SE19800005082	19800710
US4402436 A	19830906	US19810282164	19810710

Priority:

SE19800005082 19800710 CA19810381391 19810709

Probable Assignee: NORDSTROEMS LINBANOR AB

Assignee(s): (std): NORDSTROEMS LINBANOR AB

Assignee(s): NORDSTROMS LINBANOR ENKOPING SWEDEN A CORP AB ; NORDSTROMS LINBANOR A CORP AB ; HELLGREN LEIF D ; NORUDOSUTOROOMUSU RINBANOORU AB ; AB NORDSTROEMS LINBANOR ; AB NORDSTROMS LINBANOR

Inventor(s): (std): HELLGREN L ; REIFU HERUGUREN ; HELLGREN LEIF A

Inventor(s): HELLGREN LEIF D ; L HELLGREN

Agent(s): GOUDREAU GAGE DUBUC

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
JP1591194 C3	19901130	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1591194 C3	20010710	PEXP		Calculated Patent Term Expiry	
JP2017437 B4	19900420	LSPB	+	published / reissued	
JP57046793 A2	19820317	LSPB	+	published / reissued	
SE422311 B	19820301	LSPB	+	published / reissued	
SE422311 B	19950131	LSLE	-NUG	PATENT HAS LAPSED	TEXT : 8005082-6 EFFECTIVE DATE : 19900702
SE422311 C	19820610	LSGT	+	granted / extensions (spc, cpc, pte)	
SE422311 C	20000710	PEXP		Calculated Patent Term Expiry	
SE8005082 A	19820111	LSPB	+	published / reissued	
US4402436 A	19830906	LSGT	+	granted / extensions (spc, cpc, pte)	
US4402436 A	19820122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AB NORDSTROMS LINBANOR, ENKOPING, SWEDEN A

CORP. O
 OLDPARTY : ASSIGNMENT OF
 ASSIGNORS INTEREST.;
 ASSIGNOR:HELLGREN, LEIF A.;
 REEL/FRAME:003944/0163
 EFFECTIVE DATE : 19810629

US4402436 A	19870305	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4402436 A	19910908	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4402436 A	19910908	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4402436 A	19910908	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4402436 A	19911126	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19910908

Title: DUAL CARGO SHIP

Abstract: (Claim 1) 1. In an apparatus for storage and discharge of bulk as well as pulverulent material comprising a receptacle for material having a discharge outlet in the bottom thereof, a supporting means positioned adjacent said discharge outlet, a gate member mounted on said supporting means for selective reciprocal movement between a position beneath the discharge outlet to close the outlet and a position to one side of the outlet to permit discharge of material therethrough, said gate member adapted to discharge material from said outlet, a fluid-activated gravity-conveying unit, at least one supporting member positioned immediately adjacent said discharge outlet, means mounting said fluidactivated gravity-conveying unit from said supporting member for selective reciprocal movement to a position beneath said discharge outlet to receive material there- from and to convey received material from therebeneath to a position to one side of said discharge outlet to permit said gate member to be moved to a position beneath said discharge outlet and means for moving said gate member and said fluid-activated gravity-conveying unit.

Classifications:

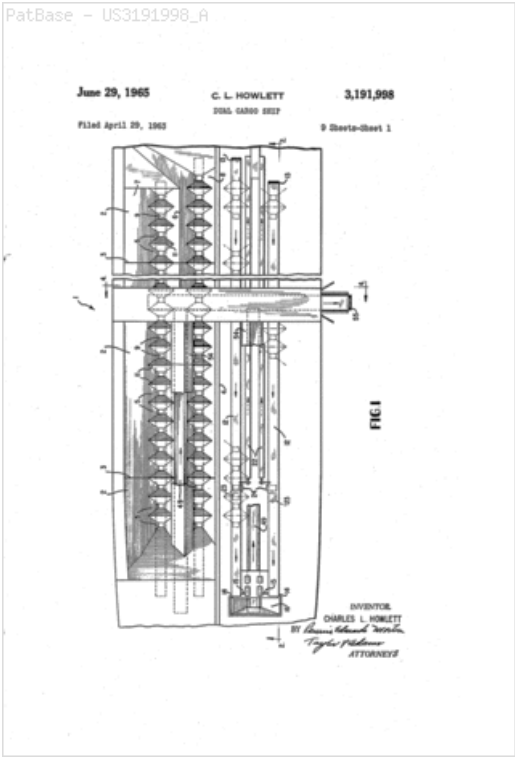
International (IPC 8-9): B63B27/22 (Advanced/Invention);
B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/22

CPC: B63B27/22

European: B63B27/22

US: 222/279 406/128 406/53 414/141.9 414/142.3



Family:

Publication number	Publication date	Application number	Application date
US3191998 A	19650629	US19630276338	19630429

Priority:

US19630276338 19630429

Probable Assignee: HURON PORTLAND CEMENT CO

Assignee(s): (std): HURON PORTLAND CEMENT CO ; HURON PORTLAND CEMENT COMPANY

Assignee(s): NATIONAL GYPSUM CO

Inventor(s): (std): HOWLETT CHARLES L

Legal status (INPADOC)

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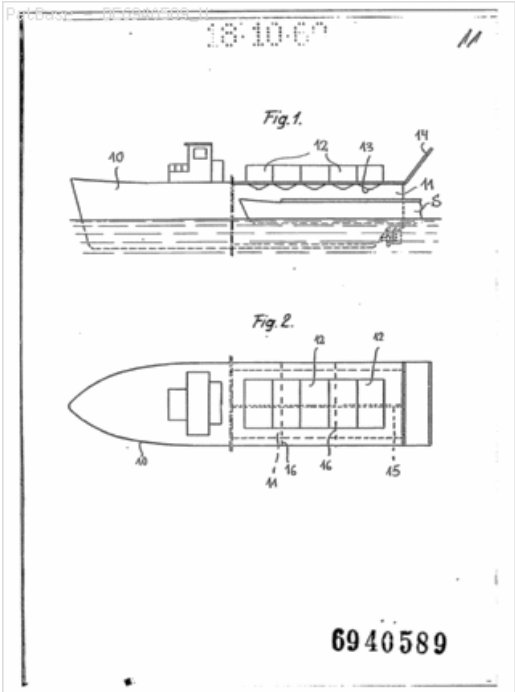
Patent	Date recorded	Event group	Code	Event	Details
US3191998 A	19650629	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: SCHIFF FUER DEN TRANSPORT VON STUECK- UND/ODER SCHUETTGUETERN SOWIE VON FLUESSIGEM TRANSPORTGUT SHIP FOR THE TRANSPORTATION OF PIECES AND / OR SCHUETTGUETERN as well as liquids transported (Machine translation)

Abstract: Source: DE6940589U [DE] (Claim 1) 4. Schiff nach Anspruch 1 bis 3t dadurch gekenn- zeichnet, dass die die Kammer (11) seitlich begrenzenden Raeume desSchiffsumpfes (10) als Ballast-bzw.

Machine translation: (Claim 1) 4th Ship according to claim 1 characterized 3t that the chamber (11) laterally delimiting spaces desSchiffsumpfes (10) or as ballast.

Classifications:
International (IPC 8-9): B63B27/30 (Advanced/Invention);
B63B27/00 (Core/Invention)
International (IPC 1-7): B63B27/00



Family:

Publication number	Publication date	Application number	Application date
DE6940589 U	19700305	DE19690040589U	19691016

Priority:
DE19690040589U 19691016 DE19690040589U 19691018
Probable Assignee: DAHMER HANS JOACHIM
Assignee(s): (std): DAHMER HANS JOACHIM
Assignee(s): HANS JOACHIM DAHMER
Inventor(s): (std): DAHMER HANS JOACHIM
Inventor(s): HANS JOACHIM DAHMER

Legal status (INPADOC)
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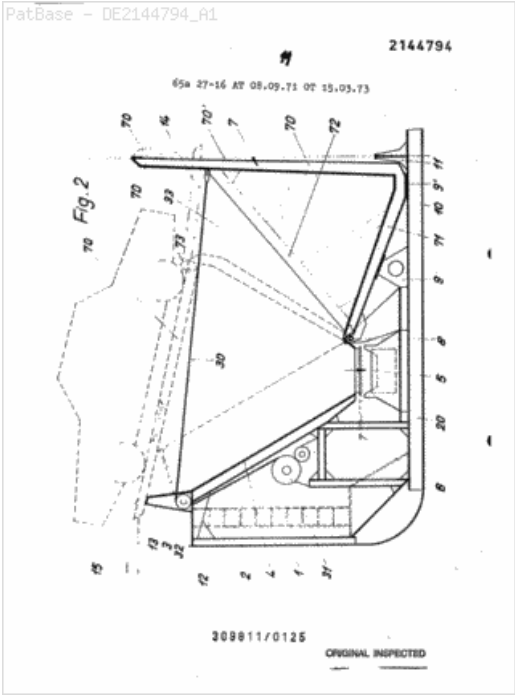
Patent	Date recorded	Event group	Code	Event	Details
DE6940589 U	19700305	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: FRACHTSCHIFF MIT SELBSTENTLADEVORRICHTUNG CARGO SHIP WITH SELBSTENTLADEVORRICHTUNG (Machine translation)

Abstract: Source: DE2144794A1 [DE] Patentansprueche 9 1 Frachtschiff mit Selbstentladevorrichtung, insbesondere fuer Binnenfahrt, bei dem laengsschiff nebeneinander angeordnete, querschiffs durch Krafteinwirkung bewegbare, mindestens zweiseitig geschlossene Kippmulden angeordnet sind, wobei auf dem Boden des Schiffes, den Schwenkachsen der Mulden zugeordnet, eine abdeckbare laengsschiffs wirkende Austrageinrichtung angeordnet ist, dadurch gekennzeichnet dass die Aussenwaende (4) des Laderaumes (3) auf der Backbordund Steuerbordseite als feste Schraegwaende ausgebildet sind, deren untere Enden jeweils laengsschiff liegenden Austrageinrichtungen (5) zugeordnet sind und der Laderaum (3) des Schiffes (1) axial mittig geteilt ausgebildet ist mit einer doppelten, nur mittschiffs liegenden Muldenanordnung, die in Offenstellung mit ihren Seitenwaenden (70) Ruecken an Ruecken liegen, wobei der Schwenkwinkel der Mulden (7) so gross ist, dass jeweils die Seitenwand (70) derselben bis in die bzw.

Machine translation: Is arranged claims 9 1 cargo ship with Selbstentladevorrichtung, especially for single trip, where the laengsschiff arranged side by side, are arranged athwartships by force movable, at least two other closed dump body, being assigned to the bottom of the ship, the pivot axes of the troughs, a coverable laengsschiffs acting delivery device characterized in that the outer walls (4) of cargo space (3) on the Backbordund starboard side are formed as solid Schraegwaende, the lower ends laengsschiff each underlying discharge devices (5) are assigned and trained the hold (3) of the vessel (1) axially split in the middle with a double, only amidships lying trough assembly in open position with its side walls (70) are back to back, the swivel angle of the cavities (7) so large that each of the side wall (70) of the same up to or

Classifications:
International (IPC 8-9): B63B27/16 (Advanced/Invention);
B63B27/00 (Core/Invention)
International (IPC 1-7): B63B27/16
CPC: B63B27/16
European: B63B27/16



Family:

Publication number	Publication date	Application number	Application date
DE2144794 A1	19730315	DE19712144794	19710908

Priority:

DE19712144794 19710908

Probable Assignee: POTT RICHARD
Assignee(s): (std): POTT RICHARD
Assignee(s): POTT RICHARD 4931 LAGE HEIDEN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2144794 A1	19730315	LSPB	+	published / reissued	

Title: ASSEMBLY FOR USE IN THE **CARGO HOLD** OF A SHIP, AND METHOD FOR ARRANGING THEREOF

Abstract: Assembly for use in a ship with a **cargo hold** (1) having a substantially flat bottom provided with at least one unloading opening (2) for unloading a cargo, wherein the assembly comprises a system (9) of jet water lines (10,12) which can be connected to a supply pipe of the vessel, and at least some of the jet water lines are provided with nozzles (13), which nozzles are adapted to move the cargo on the bottom in the direction of one of the at least one unloading openings (2).

Classifications:

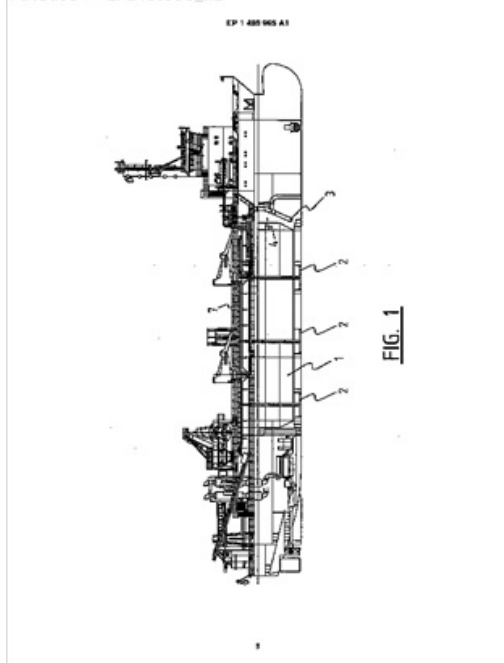
International (ipc 8-9): B63B35/30 B63B57/02 (Advanced/Invention);
B63B35/00 B63B57/00 (Core/Invention)

International (ipc 1-7): B63B35/30 B63B57/02

CPC: B63B35/306 B63B57/02

European: B63B35/30F B63B57/02

PatBase - EP1488995_A1



Family:

Publication number	Publication date	Application number	Application date
AT345970 E	20061215	AT20040076790T	20040618
BE1015574 AF	20050607	BE20030000367	20030620
DE602004003292 D1	20070104	DE200460003292T	20040618
DE602004003292 T2	20070628	DE200460003292T	20040618
EP1488995 A1	20041222	EP20040076790	20040618
EP1488995 B1	20061122	EP20040076790	20040618

Priority:

BE20030000367 20030620

Probable Assignee: DREDGING INT

Assignee(s): (std): DREDGING INT ; DREDGING INT N V

Assignee(s): DREDGING INT NV ; DREDGING INTERNATIONAL N V

Inventor(s): (std): CLYMANS ETIENNE

Designated states: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT345970 E	20061215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT345970 E	20070515	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT345970 E	20240618	PEXP		Calculated Patent Term Expiry	
BE1015574 AF	20071231	LSLE	-RE	PATENT LAPSED	EFFECTIVE DATE : 20070630
DE602004003292 T2	20070628	LSGT	+	granted / extensions (spc, cpc, pte)	
DE602004003292 T2	20071213	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602004003292 T2	20240618	PEXP		Calculated Patent Term Expiry	

EP1488995 A1	20041222	LSPB	+	published / reissued	
EP1488995 A1	20050817	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20050615
EP1488995 A1	20050914	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE 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 : HU 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 : PL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : RO COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : SI COUNTRY OF REF DOCUMENT : SK COUNTRY OF REF DOCUMENT : TR
EP1488995 A1	20050914	LSFE	+AXX	PAYMENT OF EXTENSION FEES	COUNTRY OF REF DOCUMENT : AL PAYMENT DATE : 20050615
EP1488995 A1	20050914	LSFE	+AXX	PAYMENT OF EXTENSION FEES	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20050615
EP1488995 A1	20050914	LSFE	+AXX	PAYMENT OF EXTENSION FEES	COUNTRY OF REF DOCUMENT : LV PAYMENT DATE : 20050615
EP1488995 B1	20061122	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1488995 B1	20061122	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 : 20061122
EP1488995 B1	20061122	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061122
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				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061122
EP1488995 B1	20061122	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 : 20061122
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EP1488995 B1	20061122	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 : 20061122
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EP1488995 B1	20061122	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1488995 B1	20061215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1488995 B1	20061229	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1488995 B1	20070222	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 : 20070222

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EP1488995 B1	20070222	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 : 20070222
EP1488995 B1	20070305	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 : 20070305
EP1488995 B1	20070423	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 : 20070423
EP1488995 B1	20070425	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	REF COUNTRY CODE : EP EFFECTIVE DATE : 20061122
EP1488995 B1	20070615	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
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EP1488995 B1	20080131	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 : 20070630
EP1488995 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 : 20070223
EP1488995 B1	20080530	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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20070618
EP1488995 B1	20090130	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 : 20061122
EP1488995 B1	20090831	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 : 20070618
EP1488995 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20061122
EP1488995 B1	20090930	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 : 20061122
EP1488995 B1	20090930	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 : 20070523
EP1488995 B1	20110831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20110629 YEAR OF FEE PAYMENT : 8
EP1488995 B1	20110930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20110629 YEAR OF FEE PAYMENT : 8
EP1488995 B1	20111031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20110722 YEAR OF FEE PAYMENT : 8
EP1488995 B1	20111130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20110629 YEAR OF FEE PAYMENT : 8
EP1488995 B1	20111230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20110702 YEAR OF FEE PAYMENT : 8
EP1488995 B1	20121231	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : DREDGING INTERNATIONAL N.V. EFFECTIVE DATE : 20120630
EP1488995 B1	20130116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20130101
EP1488995 B1	20130227	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20120618
EP1488995 B1	20130329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20130228
EP1488995 B1	20130418	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602004003292 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130101
EP1488995 B1	20130430	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 : 20120630
EP1488995 B1	20130430	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 : 20130101
EP1488995 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING	COUNTRY OF REF DOCUMENT : NL

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20130101
EP1488995 B1	20130430	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 : 20120702
EP1488995 B1	20130430	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 : 20120618
EP1488995 B1	20240618	PEXP		Calculated Patent Term Expiry	

US10088061 BB	20181002	US20170423231	20170202
US10093493 BB	20181009	US20160007829	20160127
US10326386 BB	20190618	US20170478800	20170404
US10370204 BB	20190806	US20160007993	20160127
WO16126492 A1	20160811	WO2016US15206	20160127
WO16126494 A1	20160811	WO2016US15215	20160127
WO16126495 A1	20160811	WO2016US15220	20160127
WO16126496 A1	20160811	WO2016US15221	20160127
WO16126497 A1	20160811	WO2016US15224	20160127
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WO16126500 A1	20160811	WO2016US15228	20160127
WO16126501 A1	20160811	WO2016US15229	20160127
WO16126502 A1	20160811	WO2016US15231	20160127
WO16126503 A1	20160811	WO2016US15232	20160127
WO16126504 A1	20160811	WO2016US15234	20160127
WO16126505 A1	20160811	WO2016US15236	20160127
WO16126506 A1	20160811	WO2016US15238	20160127
WO16126507 A1	20160811	WO2016US15239	20160127

Priority:

US20150113511P	20150208	US20150232876P	20150925	US20150234226P	20150929
US20150235436P	20150930	US20150239050P	20151008	US20150240718P	20151013
US20150242562P	20151016	US20150243903P	20151020	US20150254368P	20151112
US20150255680P	20151116	US20160007452	20160127	US20160007718	20160127
US20160007745	20160127	US20160007712	20160127	US20160007974	20160127
US20160007883	20160127	US20160007783	20160127	US20160007822	20160127
US20160008017	20160127	US20160007993	20160127	US20160007829	20160127
US20160007801	20160127	US20160008024	20160127	US20160007940	20160127
WO2016US15229	20160127	WO2016US15228	20160127	WO2016US15215	20160127
WO2016US15221	20160127	WO2016US15239	20160127	US20160353181	20161116
US20160386549	20161221	US20170423231	20170202	US20170478800	20170404
US20170689860	20170829	US20190438779	20190612		

Probable Assignee: HYPERLOOP TECHNOLOGIES INC

Assignee(s): (std): HYPERLOOP TECH INC ; HYPERLOOP TECHNOLOGIES INC

Assignee(s): VENTURE LENDING AND LEASING VIII INC ; VENTURE LENDING AND LEASING VII INC ; PENINSULAR AND ORIENTAL STEAM NAVIGATION CO ; BAMBROGAN BROGAN ; DP WORLD FZE ; GIEGEL JOSHUA

Inventor(s): (std): DEHAAN DAVID ; SHAFRIR DANIEL ; RONACHER THOMAS ; GAUNT MICHAEL ; COTHERN KYLE ; OKERSON RYAN ; AVETIAN TADEH ; DURDEN HELEN ; COUTRE JAMES T ; HANDMER CASEY ; GIEGEL JOSHUA ; HOSSEINI KAVEH ; BAMBROGAN BROGAN ; O NEAL GEORGE ; FINODEYEV FILIP ; LIANG JIAQI ; JETTI SANDHYA RANI ; DORRIS JAMES ; BAHRAMI NIMA ; DOYLE ANDREW ; BROGAN BAMBROGAN

Inventor(s): ONEAL GEORGE

Agent(s): DAVIES COLLISON CAVE PTY LTD; SMART AND BIGGAR; GILL JENNINGS AND EVERY LLP; OOO YURIDICHESKAYA GORODISSKIJ I PARTNERY FA; GREENBLUM AND BERNSTEIN PLC; TURK ARNOLD ET AL; MUELLER ROBERT W 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)

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Patent	Date recorded	Event group	Code	Event	Details
AU2016215689 AA	20170720	LSPB	+	published / reissued	
AU2016215689 AA	20180920	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2) (E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
CA2975711 AA	20170802	LSPB	+	published / reissued	
CN107406009 A	20171128	LSPB	+	published / reissued	
CN107406009 A	20171128	LSPB	PB01	PUBLICATION	
CN107406009 A	20180824	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
CN107428258 A	20171201	LSPB	+	published / reissued	
CN107428258 A	20171201	LSPB	PB01	PUBLICATION	
CN107428258 A	20180824	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED	

					WITHDRAWN AFTER PUBLICATION	
CN107466444 A	20171212	LSPB	+	published / reissued		
CN107466444 A	20171212	LSPB	PB01	PUBLICATION		
CN107466444 B	20190517	LSGT	+	granted / extensions (spc, cpc, pte)		
CN107466444 B	20190517	LSGT	+GR01	PATENT GRANT		
CN107466444 B	20360127	PEXP		Calculated Patent Term Expiry		
EP3253612 A1	20171213	LSPB	+	published / reissued		
EP3253612 A1	20171213	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170721	
EP3253612 A4	20190116	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20181213	
EP3253636 A1	20171213	LSPB	+	published / reissued		
EP3253636 A1	20171213	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170721	
EP3253636 A4	20190116	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20181213	
IN201747026337 A	20171124	LSPB	+	published / reissued		
JP2018513665 T2	20180524	LSPB	+	published / reissued		
JP2018513665 T2	20180313	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20180313	
JP2018513665 T2	20180912	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20180912	
JP2018513665 T2	20181218	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20181218	
JP2018513665 T2	20190314	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20190314	
JP2018513665 T2	20190404	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN		
JP2018513665 T2	20190416	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20190416	
JP2018513665 T2	20190523	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20190515	
JP2018513665 T2	20190524	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6530083 COUNTRY OF REF DOCUMENT : JP	
JP6530083 B2	20190612	LSGT	+	granted / extensions (spc, cpc, pte)		
JP6530083 B2	20190418	LSGT	+A01	特許査定書 (Decision of patent grant)		
JP6530083 B2	20190521	LSFE	R100	特許料納付書 (Patent fee payment form)		
JP6530083 B2	20190524	LSGT	+R150	特許証 (Patent		

certificate)				
JP6530083 B2	20360127	PEXP		Calculated Patent Term Expiry
KR101922197 B1	20181126	LSGT	+	granted / extensions (spc, cpc, pte)
KR101922197 B1	20170926	LSES	A201	REQUEST FOR EXAMINATION
KR101922197 B1	20170926	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION
KR101922197 B1	20190527	LSOP	-Z031	REQUEST FOR PATENT CANCELLATION [NEW POST GRANT OPPOSITION SYSTEM INTRODUCED ON 1 MARCH 2017]
KR101922197 B1	20360127	PEXP		Calculated Patent Term Expiry
KR20170125340 A	20171114	LSPB	+	published / reissued
KR20170125340 A	20180213	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20170125340 A	20180827	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20170125340 A	20181120	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20180084154 A	20180724	LSPB	+	published / reissued
RU2643904 C1	20180206	LSGT	+	granted / extensions (spc, cpc, pte)
RU2643904 C1	20360127	PEXP		Calculated Patent Term Expiry
US10046776 BB	20180814	LSGT	+	granted / extensions (spc, cpc, pte)
US10046776 BB	20180725	LSGT	PAT1	Patented Case
US10046776 BB	20181116	LSAS	AS	ASSIGNMENT PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNORS: VENTURE LENDING & LEASING VII, INC.; VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:047588/0255 EFFECTIVE DATE : 20181115
US10046776 BB	20190610	LSAS	AS	ASSIGNMENT PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: COUTRE, JAMES T.; HANDMER, CASEY; BAMBROGAN, BROGAN; AND OTHERS; SIGNING DATES FROM 20160125 TO 20160126; REEL/FRAME:049415/0021
US10046776 BB	20361230	PEXP		Calculated Patent Term Expiry (PTA 9 days)
US10088061 BB	20181002	LSGT	+	granted / extensions (spc, cpc, pte)
US10088061 BB	20181116	LSAS	AS	ASSIGNMENT PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNORS: VENTURE LENDING & LEASING VII, INC.; VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:047588/0255 EFFECTIVE DATE : 20181115

US10088061 BB	20370202	PEXP		Calculated Patent Term Expiry	
US10093493 BB	20181009	LSGT	+	granted / extensions (spc, cpc, pte)	
US10093493 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:037601/0146 EFFECTIVE DATE : 20160126
US10093493 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US10093493 BB	20180919	LSGT	PAT1	Patented Case	
US10093493 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US10093493 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US10093493 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US10093493 BB	20360612	PEXP		Calculated Patent Term Expiry (PTA 137 days)	
US10326386 BB	20190618	LSGT	+	granted / extensions (spc, cpc, pte)	
US10326386 BB	20170504	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:JETTI, SANDHYA RANI; O'NEAL, GEORGE; BAHRAMI, NIMA; AND OTHERS; REEL/FRAME:042399/0742 EFFECTIVE DATE : 20160126
US10326386 BB	20370729	PEXP		Calculated Patent Term Expiry (PTA 116 days)	
US10370204 BB	20190806	LSGT	+	granted / extensions (spc, cpc, pte)	
US10370204 BB	20360127	PEXP		Calculated Patent Term Expiry	
US2016229297 AA	20160811	LSPB	+	published / reissued	
US2016229297 AA	20170524	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of	

US2016229297 AA	20170809	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016229297 AA	20170810	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016229297 AA	20170830	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229416 AA	20160811	LSPB	+	published / reissued	
US2016229416 AA	20170308	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229417 AA	20160811	LSPB	+	published / reissued	
US2016229417 AA	20161122	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229418 AA	20160811	LSPB	+	published / reissued	
US2016229418 AA	20170321	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016229418 AA	20170626	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016229418 AA	20170628	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016229418 AA	20170712	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229419 AA	20160811	LSPB	+	published / reissued	
US2016229419 AA	20161116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229420 AA	20160811	LSPB	+	published / reissued	
US2016229420 AA	20170125	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229427 AA	20160811	LSPB	+	published / reissued	
US2016229427 AA	20161214	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016229646 AA	20160811	LSPB	+	published / reissued	
US2016229646 AA	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:037601/0251 EFFECTIVE DATE : 20160126
US2016229646 AA	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US2016229646 AA	20170627	LSES	NFA1	Non Final Action Mailed	
US2016229646 AA	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP

					TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US2016229646 AA	20180525	LSES	ADV1	Advisory Action Mailed	
US2016229646 AA	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US2016229646 AA	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US2016229646 AA	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US2016229646 AA	20190328	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016229646 AA	20190522	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016229646 AA	20190530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:DP WORLD FZE; REEL/FRAME:049319/0444 EFFECTIVE DATE : 20190529
US2016229646 AA	20190717	LSGT	PAT1	Patented Case	
US2016229646 AA	20190717	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016230350 AA	20160811	LSPB	+	published / reissued	
US2016230350 AA	20170505	LSES	NFA1	Non Final Action Mailed	
US2016230350 AA	20171229	LSES	ADV2	Advisory Action Counted, Not Yet Mailed	
US2016230350 AA	20180102	LSES	ADV1	Advisory Action Mailed	
US2016230350 AA	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US2016230350 AA	20180601	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016230350 AA	20180919	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016230768 AA	20160811	LSPB	+	published /	

US2016230768 AA	20160127	LSAS	AS	reissued ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:037601/0186 EFFECTIVE DATE : 20160126
US2016230768 AA	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US2016230768 AA	20170315	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2016230768 AA	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US2016230899 AA	20160811	LSPB	+	published / reissued	
US2016230899 AA	20170301	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016230915 AA	20160811	LSPB	+	published / reissued	
US2016230915 AA	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COTHERN, KYLE; GAUNT, MICHAEL; RONACHER, THOMAS; AND OTHERS; REEL/FRAME:037599/0948 EFFECTIVE DATE : 20160126
US2016230915 AA	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US2016230915 AA	20170614	LSES	ADV1	Advisory Action Mailed	
US2016230915 AA	20170804	LSAL	NAF1	Notice of Appeal Filed	
US2016230915 AA	20180105	LSES	ADV1	Advisory Action Mailed	
US2016230915 AA	20180204	LSAL	NAF1	Notice of Appeal Filed	
US2016230915 AA	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US2016230915 AA	20181003	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2016230915 AA	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US2016230915 AA	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

US2016230915 AA	20190327	LSAS	AS	ASSIGNMENT	OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US2016230915 AA	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US2016233754 AA	20160811	LSPB	+	published / reissued	
US2016233754 AA	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DORRIS, JAMES; DOYLE, ANDREW; BAMBROGAN, BROGAN; AND OTHERS; REEL/FRAME:037600/0749 EFFECTIVE DATE : 20160126
US2016233754 AA	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US2016233754 AA	20170228	LSES	NFA1	Non Final Action Mailed	
US2016233754 AA	20170925	LSES	ADV2	Advisory Action Counted, Not Yet Mailed	
US2016233754 AA	20171003	LSES	ADV1	Advisory Action Mailed	
US2016233754 AA	20171228	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016233754 AA	20180102	LSES	NFA1	Non Final Action Mailed	
US2016233754 AA	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US2016233754 AA	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US2016233754 AA	20181221	LSES	NFA1	Non Final Action Mailed	
US2016233754 AA	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US2016233754 AA	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325

US2016233754 AA	20190530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:DP WORLD FZE; REEL/FRAME:049319/0444 EFFECTIVE DATE : 20190529
US2016233754 AA	20190730	LSES	ADV1	Advisory Action Mailed	
US2016233809 AA	20160811	LSPB	+	published / reissued	
US2016233809 AA	20170412	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017066457 AA	20170309	LSPB	+	published / reissued	
US2017066457 AA	20170320	LSES	NFA1	Non Final Action Mailed	
US2017066457 AA	20170713	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017066457 AA	20170818	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2017066457 AA	20170822	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017066457 AA	20171009	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017066457 AA	20171018	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017106879 AA	20170420	LSPB	+	published / reissued	
US2017106879 AA	20180409	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017106879 AA	20180525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045907/0957 EFFECTIVE DATE : 20180524
US2017106879 AA	20180525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045907/0957 EFFECTIVE DATE : 20180524
US2017106879 AA	20180710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DEHAAN, DAVID; REEL/FRAME:046309/0214 EFFECTIVE DATE : 20180706
US2017106879 AA	20180711	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2017106879 AA	20180712	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017106879 AA	20180725	LSGT	STCF	INFORMATION ON STATUS:	TEXT : PATENTED CASE

US2017146136 AA	20170525	LSPB	+	PATENT GRANT published / reissued	
US2017146136 AA	20170921	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COTHERN, KYLE; GAUNT, MICHAEL; RONACHER, THOMAS; AND OTHERS; REEL/FRAME:043656/0799 EFFECTIVE DATE : 20160126
US2017146136 AA	20180124	LSES	NFA1	Non Final Action Mailed	
US2017146136 AA	20180525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045907/0957 EFFECTIVE DATE : 20180524
US2017146136 AA	20180525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045907/0957 EFFECTIVE DATE : 20180524
US2017146136 AA	20180530	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017146136 AA	20180912	LSGT	PAT1	Patented Case	
US2017146136 AA	20180912	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017207735 AA	20170720	LSPB	+	published / reissued	
US2017207735 AA	20180122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045112/0164 EFFECTIVE DATE : 20180116
US2017207735 AA	20180122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045112/0164 EFFECTIVE DATE : 20180116
US2017207735 AA	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US2017207735 AA	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNORS:VENTURE LENDING & LEASING VII, INC.; VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:047588/0255 EFFECTIVE DATE : 20181115
US2017207735 AA	20190201	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017207735 AA	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED

					ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US2017207735 AA	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US2017207735 AA	20190529	LSGT	PAT1	Patented Case	
US2017207735 AA	20190529	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017207735 AA	20190530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:DP WORLD FZE; REEL/FRAME:049319/0444 EFFECTIVE DATE : 20190529
US2018022219 AA	20180125	LSPB	+	published / reissued	
US2018022219 AA	20170908	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINODEYEV, FILIP; GIEGEL, JOSHUA; BAMBROGAN, BROGAN; AND OTHERS; SIGNING DATES FROM 20160126 TO 20160127; REEL/FRAME:043533/0360
US2018022219 AA	20180122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045112/0164 EFFECTIVE DATE : 20180116
US2018022219 AA	20180122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045112/0164 EFFECTIVE DATE : 20180116
US2018022219 AA	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US2018022219 AA	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNORS:VENTURE LENDING & LEASING VII, INC.; VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:047588/0255 EFFECTIVE DATE : 20181115
US2018022219 AA	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US2018022219 AA	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED

					ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US2018022219 AA	20190530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:DP WORLD FZE; REEL/FRAME:049319/0444 EFFECTIVE DATE : 20190529
US2018022219 AA	20190910	LSES	NFA1	Non Final Action Mailed	
US2019300301 AA	20191003	LSPB	+	published / reissued	
US2019300301 AA	20190612	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:049449/0175 EFFECTIVE DATE : 20160126
US2019300301 AA	20191001	LSES	NFA1	Non Final Action Mailed	
US9511959 BB	20161206	LSGT	+	granted / extensions (spc, cpc, pte)	
US9511959 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:037600/0973 EFFECTIVE DATE : 20160126
US9511959 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9511959 BB	20161116	LSGT	PAT1	Patented Case	
US9511959 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9511959 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9511959 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9511959 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9511959 BB	20360127	PEXP		Calculated	

				Patent Term Expiry	
US9517901 BB	20161213	LSGT	+	granted / extensions (spc, cpc, pte)	
US9517901 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:037597/0211 EFFECTIVE DATE : 20160126
US9517901 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9517901 BB	20161122	LSGT	PAT1	Patented Case	
US9517901 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9517901 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9517901 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9517901 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9517901 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9533697 BB	20170103	LSGT	+	granted / extensions (spc, cpc, pte)	
US9533697 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AVETIAN, TADEH; DURDEN, HELEN; OKERSON, RYAN; AND OTHERS; REEL/FRAME:037601/0191 EFFECTIVE DATE : 20160126
US9533697 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9533697 BB	20161214	LSGT	PAT1	Patented Case	
US9533697 BB	20180927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION

					COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:046993/0499 EFFECTIVE DATE : 20180125
US9533697 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9533697 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9533697 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9533697 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9566987 BB	20170214	LSGT	+	granted / extensions (spc, cpc, pte)	
US9566987 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COUTRE, JAMES T.; HANDMER, CASEY; BAMBROGAN, BROGAN; AND OTHERS; SIGNING DATES FROM 20160125 TO 20160126; REEL/FRAME:037600/0543
US9566987 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9566987 BB	20170125	LSGT	PAT1	Patented Case	
US9566987 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9566987 BB	20180824	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DEHAAN, DAVID; REEL/FRAME:046694/0120 EFFECTIVE DATE : 20170714
US9566987 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9566987 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF

					INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9566987 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9566987 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9599235 BB	20170321	LSGT	+	granted / extensions (spc, cpc, pte)	
US9599235 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COTHERN, KYLE; GAUNT, MICHAEL; RONACHER, THOMAS; AND OTHERS; REEL/FRAME:037599/0901 EFFECTIVE DATE : 20160126
US9599235 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9599235 BB	20170301	LSGT	PAT1	Patented Case	
US9599235 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9599235 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9599235 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9599235 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9599235 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9604798 BB	20170328	LSGT	+	granted / extensions (spc, cpc, pte)	
US9604798 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN;

					GIEGEL, JOSHUA; REEL/FRAME:037600/0413 EFFECTIVE DATE : 20160126
US9604798 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9604798 BB	20170308	LSGT	PAT1	Patented Case	
US9604798 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9604798 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9604798 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9604798 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9604798 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9641117 BB	20170502	LSGT	+	granted / extensions (spc, cpc, pte)	
US9641117 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:JETTI, SANDHYA RANI; O'NEAL, GEORGE; BAHRAMI, NIMA; AND OTHERS; REEL/FRAME:037601/0028 EFFECTIVE DATE : 20160126
US9641117 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9641117 BB	20170412	LSGT	PAT1	Patented Case	
US9641117 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9641117 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE

					LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9641117 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9641117 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9641117 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9718630 BB	20170801	LSGT	+	granted / extensions (spc, cpc, pte)	
US9718630 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BAMBROGAN, BROGAN; GIEGEL, JOSHUA; REEL/FRAME:037600/0508 EFFECTIVE DATE : 20160126
US9718630 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9718630 BB	20170712	LSGT	PAT1	Patented Case	
US9718630 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9718630 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9718630 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9718630 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9718630 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9764648 BB	20170919	LSGT	+	granted / extensions (spc,	

cpc, pte)					
US9764648 BB	20160127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINODEYEV, FILIP; GIEGEL, JOSHUA; BAMBROGAN, BROGAN; AND OTHERS; SIGNING DATES FROM 20150126 TO 20160126; REEL/FRAME:037600/0903
US9764648 BB	20160401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:038614/0516 EFFECTIVE DATE : 20160331
US9764648 BB	20160512	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE EXECUTION DATE OF THE 4TH AND 5TH CONVEYING PARTY'S PREVIOUSLY RECORDED AT REEL: 037600 FRAME: 0903. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNORS:FINODEYEV, FILIP; GIEGEL, JOSHUA; BAMBROGAN, BROGAN; AND OTHERS; SIGNING DATES FROM 20160126 TO 20160127; REEL/FRAME:038689/0548
US9764648 BB	20170830	LSGT	PAT1	Patented Case	
US9764648 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9764648 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:048106/0969 EFFECTIVE DATE : 20181115
US9764648 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9764648 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9764648 BB	20360127	PEXP		Calculated Patent Term Expiry	
US9809232 BB	20171107	LSGT	+	granted / extensions (spc, cpc, pte)	
US9809232 BB	20161116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AVETIAN, TADEH; DURDEN, HELEN; OKERSON, RYAN; AND OTHERS; REEL/FRAME:040346/0448 EFFECTIVE DATE : 20160126

US9809232 BB	20171018	LSGT	PAT1	Patented Case	
US9809232 BB	20180122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VIII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045112/0164 EFFECTIVE DATE : 20180116
US9809232 BB	20180122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VENTURE LENDING & LEASING VII, INC., CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045112/0164 EFFECTIVE DATE : 20180116
US9809232 BB	20180205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPA OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:045252/0397 EFFECTIVE DATE : 20180125
US9809232 BB	20181116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYPERLOOP TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNORS:VENTURE LENDING & LEASING VII, INC.; VENTURE LENDING & LEASING VIII, INC.; REEL/FRAME:047588/0255 EFFECTIVE DATE : 20181115
US9809232 BB	20190204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : ASSIGNMENT OF INTELLECTUAL PROPERTY COLLATERAL LIEN AGREEMENT; ASSIGNOR:THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY; REEL/FRAME:048231/0862 EFFECTIVE DATE : 20181104
US9809232 BB	20190327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DP WORLD FZE, UNITED ARAB EMIRATES OLDPARTY : SECURITY INTEREST; ASSIGNOR:HYPERLOOP TECHNOLOGIES, INC.; REEL/FRAME:048711/0702 EFFECTIVE DATE : 20190325
US9809232 BB	20361116	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO16126492 A1	20160811	LSPB	+	published / reissued	
WO16126492 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126492 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747003 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126494 A1	20160811	LSPB	+	published / reissued	
WO16126494 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126494 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747005 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126495 A1	20160811	LSPB	+	published / reissued	
WO16126495 A1	20170809	LSNE	NENP	NON-ENTRY	REF COUNTRY CODE : DE

				INTO THE NATIONAL PHASE IN:	
WO16126495 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747006 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126496 A1	20160811	LSPB	+	published / reissued	
WO16126496 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126497 A1	20160811	LSPB	+	published / reissued	
WO16126497 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126497 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747008 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126498 A1	20160811	LSPB	+	published / reissued	
WO16126498 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126498 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747009 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126500 A1	20160811	LSPB	+	published / reissued	
WO16126500 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126500 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747011 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126501 A1	20160811	LSPB	+	published / reissued	
WO16126501 A1	20170720	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016215689 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20160127 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO16126501 A1	20170802	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2975711 COUNTRY OF REF DOCUMENT : CA
WO16126501 A1	20170807	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017555466 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO16126501 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126501 A1	20170907	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20177025259 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO16126502 A1	20160811	LSPB	+	published / reissued	
WO16126502 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126502 A1	20180307	LSNE	-122	EP: PCT APPLICATION	REF DOCUMENT NUMBER : 16747013

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WO16126503 A1	20160811	LSPB	+	published / reissued	
WO16126503 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126503 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747014 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126504 A1	20160811	LSPB	+	published / reissued	
WO16126504 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126504 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747015 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126505 A1	20160811	LSPB	+	published / reissued	
WO16126505 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126505 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747016 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126506 A1	20160811	LSPB	+	published / reissued	
WO16126506 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126506 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747017 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO16126507 A1	20160811	LSPB	+	published / reissued	
WO16126507 A1	20170809	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16126507 A1	20170908	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017131418 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO16126507 A1	20180307	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16747018 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: Is the name of the invention cargo material processing apparatus wherein the Lqi Huh horizontal elongated to a large extent, the boom via the T TEWI is supported on the busyness along this longitudinal direction wall, so as to be driven to the ?-equipped with the boom of an elongate material from the cargo carrying device extends downward, the lower end portion), the upper cargo material not scooping up to crawl at its upper end, this may be a so as to emit to 1m1 of the above-mentioned possible with four-K and it is supported by the moving device and the trolley 1 with respect to the carrying device from a drive device for pivoting the boom, the held by the conveying material emitted from the device to receive a cargo, equipped = pair and one 8 of cargo moieties material processing apparatus of the present invention

Detailed Description of the Invention The material processing apparatus, Hiroshi 4I are described in K, from the vast bulk **cargo hold** cargo ship fried stone Ichinomoto-used for bulk cargo ship-management unit variations chicken and fry from the **cargo hold** may variety are used in the form of mind to raise. Most cargo open the high altitude of the Suvarnabhumi generally perpendicular to the horizontal machine type packet inspections of k to I-Yoshio et al. have clamshell type has been carried out by the unloader 1. This packet to grasp the one closed-up, the material is allowed to hold, from the hard soil. I raise the packet 117 is 1 next, the above-mentioned made suspended from the boom-Bu Rory transfer ?-emitted and transferred to the hopper 2 and the insects such coating-type if you want to use the .mu.m, one of the inductor inherent disadvantages cargo not continuous, the movement speed is that it is rather slow lifting appliance - such Formula 1 to the in-The unique four-shell 328 to overcome the disadvantages of the continuous low material variations in the cargo vehicle (also cut down on Celtic Hiroshi fecal single double). the ship cargo vehicle from O packet #39;hold ? material II-J) is equipped with a ?-and-raised, then directly to the packet, the ?-k O elevator II is the high altitude of the horizontal cargo material ELM (Quote, Chart) to the boom, the cargo material, then, Ageue the horizontal end on the pa ge: a **conveyor belt**, the **conveyor belt** is transferred to the material hopper cargo cargo transported to the release material of the II), transport, causing the discharge of the Ageue packet format, the unloader back vehicle by continuously performed. While only the frame, this type of structure is unloader-OH], a very complex, and extremely expensive. By forming a desirable because the vehicle is not a packet format of the unloader another drawback of the elevator with respect to the support structure is a straight-angle inclined with are disposed elevator, the vertical-packet only a portion only is fully kotoku bottle is a point with respect to the elevator in the vertical and therefore, packets-tilting the load at an angle when it is necessary to speed is reduced 11t j" and other forms of the in-continuous four of the cargo material, Ageue the transfer work of digging up to nine ding silver-gold type head or a continuous shape, round format to use the elevator-type packet is of the type of the packet, packets, device consisting of the cargo material as straight swing pushed into hmm with installed in one of the mast. The vertical is fixed to the lower end of the lower horizontal beam at both ends the gasket kg stomach is provided. After deformation this packet OH] Hiroshi parallelogram, the lower part is, extremely inspections of growth it has been expanded to the horizontal, the cargo-handling member to the BU, therefore, Ya = a transferred onto the hopper, thereby conveyed to the discharge product or the same biasing s and the unloader of these well-known type in continuous operation, poppy, it is a Hiroshi not ilt. <cord properties undesirable cord properties. it does not have to be of interest, that is, in the following serial device a, it is digging up the enlarged end portion becomes extremely has the shape of a variety of hold from any lifting appliance to use the device is present, ka difficulty cargo material II m1k number of packets, can i to the cargo before moving material for k) 9f, the main driving force is excessive, between the drive sprocket and sprocket-packets, the device on the support of the buchner funnel, total heat cut-off, that the support structure is in the horizontal, packet, because it is fixed to the boom, to cause the packets, may be working with the fence and can not be moved, etc. the invention relates to a substantially horizontal, the stretched long suvarnabhumi suvarnabhumi suvarnabhumi, so as to be driven in the longitudinal direction along the are equipped with four-downward from the suvarnabhumi not extend to the lower end portion z is raised, the upper cargo material, carrying a release the trolley at its top, and it is pivotally supported on cargo ? is elongated member moving device and the trolley, the carrying device from a drive device for pivoting the with respect to the suvarnabhumi, supported the conveying material emitted from the device 9 to receive the cargo, and equipped with a cargo; made by the preferred embodiment of the material processing apparatus according to the present invention resides in an embodiment only with-in conjunction with the accompanying drawings, and will be described more detailed mk k with reference to the accompanying drawings, it explained in reference with fig. 6 is a at-a-plane, identical reference numbers throughout all the parts], continuous unloading cargo may ship to a large extent, vertical support device 1g of the mast 13, may lsv along the dock 18, both cases 16 traveling on the rail that is fixed to the lower end a series of the traveling device 14 is provided. suitable power source (not shown) the electric motor 20 is connected to the traveling device-i which is coupled to the entire apparatus, in lo, unloading propelled along the dock 18, dock 18, unloading device k which is secured alongside the cargo ship 2 s et al.#39;s side 8s is to position the bottom of the ship s fist hold 4 and the side wall s5 and k2 which is partitioned and formed for hold therefore i it is equipped with a s5, the top-side wall of the inward projecting portion 36 and extends in the z-i <table, hold 8 of the cross-sectional long pepper-ovule opening s4 are it is formed. arc 80 is elongated in the mast 1 is a from the mast of the intermediate position extending in the horizontal direction put s provided on the pivot 8a, which is supported by the 80, as shown in fig. 1, the virtual contour of the peripheral of the arc-shaped pivot 8a on the distance to the movable to the top and the mast 11. inokuchi. a 30 to the free end and the respectively supported by 86 and 88 in the peripheral side vehicle, passed through the en_e: 2 rope 9 rope 84 for swinging the one] by driving a suitable for making a thundering sound 80 with respect to the mast 1, thereby elevating the mk suvarnabhumi] 80 may also one 4!!!! i l t40 by the device 40 may kakashita>, intermediate position of the mast 9 of 1m is fixed to the weight of the pad 46 be entangled-Tm good state portion of the link is pivotally attached to the pivot 44, the link-coupled together by a plurality of may be a cylindrical 314g with the coating is good, is a rope rope in this comb one i] 48 has one end the top of the link 44, the other end is a 80 is fixed at a position i0 support fitted the ear portion 9! ?.] this comb also rope 48 rope ? love! the receptacle 11 fixed to the top nine drums, 5s passed over. I also one], a device 40, 80 each other takes a load on the rounding], take a 8040 mass) against an perspective IIK various load and so as to position o #39;comb working Raku · zeta) PTO device 40 may be one effect]> for further below with the theory of p-on the order of device 60. a longitudinal direction 80 on the contrary it is equipped to 8. As shown in Fig. 4, the interleaving unit 60 and 80 attached to the Suvarnabhumi covered by the size of the outer has five IIK 800 top is fixed to the gear meshing is elongated rack member @ supports the middle housing 6S in the Bu-abrasive is longer on the track 80, 68 is a tewi, at the bottom outside of both side walls of the housing fixed to one of the trolley 6S! O and attached to the rollers in the engaged. For example water pressure fluid supply source a driving device suitable for new (not shown) is connected to the hydro, K-?? l is above gear such 64, 94 coupled to the Suvarnabhumi on 60 along the raised floor, Fuzhou fit for the head device 80 is supported by the trolley, the trolley device 60 on the housing 6 is attached to the pivotal movement relative to the housing head device 80 this is long and raised abrasive Hori knock out Don't be inclined downward-rigid ladder-like frame packet elevator 8m may include> at its upper end, the frame has a 800, and, on the top surface to the housing 61 with four-i1 which is fixed to the ear portion 11i extending upward 86 pivot 84 extending between the shelving in that order. The ladder-like with respect to the housing 61, frame 8 hydraulic cylinder S the trolley device 88 by selectively turning hydraulic cylinder, brought into the apparatus frame in an intermediate position of the ladder-like Ss coupled to 9D, the cylinder rod 92 to 1-C with four, aging 61B which is fixed to the ear 94 extends beyond the pivotally mounted on class. cylinder 8 is double-acting hydraulic cylinder device and a fluid pressurized water W (not shown) force subjected suitable for making a thundering sound" is a ladder-shaped frame 83 before the upper sprocket 96 and the lower sprocket vehicle device vehicle device 98 is rotatably supported the upper sprocket 96 is lower sprocket vehicle device vehicle device 98, both devices being diameter is large, the chafer 100 and the endless / device is mounted so as to engage the endless the revolving may Choi] coupled to parallel-link such dienes formed from 101 and the link 4 thien Los is firmly fixed to the Kyushu Kyushu; disposed spaced grain-like packets, 104. First. As shown in Fig. 8 idle wheel device 106 is in the upper portion of the ladder-like frame 8 k S thus is supported, this may be the upper sprocket 96 y-vehicle device 102 of the embodiment shown in FIG I11 so as to guide the equipped, for this purpose, the vehicle device of the lower spray pledget below between the Ku shape which is inclined Chen apparatus 100. Idle wheel device 10 trolley 11 has one end housing 5 attached to the stc ss m this, the other end, the idle wheel for rotatably supporting the link is supported by such 108-110-acting hydraulic cylinder link 108 to TEWI is connected so as to activated by, these link with respect to the ladder-like frame 81, for this purpose, this play pivots the vehicle device is selected, in close proximity to A-shaped frame 9 in a direction away [A] it can, as a result Chen device 100 is a ladder-shaped frame of the horse moves

correspondingly> k III> I) the relaxed!, and thus packets, Chen device 100 includes a lower gasket 104 is a four-vehicle device 98E: 3 nd in the vicinity of a somewhat flat path k s8 ss), the bottom of the hold--it therefore out of the vacuum cleaner, and more effectively so as to loosen a tortoise shell k, it is possible hold the bottom portion of the fist 118 to the cleaning device of the TEWI, rounding the other hand less than or equal to loosen the ? for 3600 will be described more fully in Fig. 9 k, this play-vehicle device Kd another sequence, "Play vehicle 1 in this arrangement, #39;is [106 7' is a ladder-shaped frame 811 so as to be attached to the line Positions' link such is supported by 108 # 101 # to this tension, IL> is the Kyushu comprises a cylinder 1.11' is carried out by proper operation of the device 100, the arm 801, V-a s-shaped fluorescence and front side is fixed to the guide, 11B and the plaque pledged 114 and therefore is supported by the k further additional bracket 1 before the guide 11, the rear roller 18. 11?, and supports the housing 116, respectively, formed from Choi], these rollers 710m before, to form a link such back surface of a rear side of the ladder-like when passing through the this link, coercive with pre-deployed. But the front guide 114 is a normally-aging) 118, the 10B is, the link frame 8 the front side of the ladder-like S voluntary retirement of the previous page This link such engage the front-to-deployed low 11G is made from the i i + i, s shown!! I 5,% c, after letting slip the front bracket 114 and the L1, and both of the weight and the chafer Choi y not reach the effect of packets, ? of 104 parts by weight, and 10 caused by the loosening of the port I, so as to prevent the natural ladder frame 83 along the arranged with closely spaced further rear bracket-i to l # ladder-like frame 8 in S 101, the lower end portion of loose thien ?], its hold 28 to remove the bottom portion of k therefore packet 411C l l1 itlb thus effectively cleaned, such as a k-like thing has been Ik arranged at intervals. In other words, the guide rear-l at intervals Putu Bu gasket 11, hydraulic cylinder 110 is actuated with 1 GB to the handed link B1 by moving the idle wheel, the loe in order, loosen and 108 is shown in Fig. 1.5. path, to become to take-described bottle and Lo is first 7 away from the ladder-shaped frame, then the frame II k + c #39;so as to be closer to and thus 10m., can be loosened, the lower sprocket packets, 104 around a vehicle device 98 before starting the vehicle, above the **cargo hold** on Ba in small distance only the upper sprocket Hori. cause device 96 is k, the vehicle device 80 and the working Raku drive vehicle as shown in Fig. 8, the vehicle device 96 #39;upper gasket road four-bong-company I, the gear comprising a LLZO straight, which opposed, ?? motor 114a sun gear coupled to the drive shaft of, 1B11 is engaged with a ?-, a power source (not shown) is connected to the trolley, k appropriate supported on the upper surface of the housing 6s. Each of the bucket 104 then II in the grain shape is roughly; Fig. 8 is Nikki that is ladder-like 7 as seen in the left-hand side frame 8s packets, that is, After the side when you are located in these mass) is K for subsequent its front portion, these portions are (tewi ? in each bucket depth becomes Bu) 104 from the front end ridge portion pointed to the bucket 111 is inclined 104-K Choi Lom the top to form a roughly straight Lj is open or fogging is slightly inclined respectively equipped to the opening top surface of the cargo material has is, wall 101 in, are arranged with respect to the ascertained characteristic, and (? lower gasket 104 is a vehicle device 98 starts the peripheral, the packet). The am biting of the cargo material, the lower device of the sprue, To Bu kerato peripheral li1 and IK cargo 11 cut-product I (9, in the interior of, so that the scoop up nine full, one packet) 104, when a packet is a ladder-shaped open top surface frame s when passing through the mmog thereafter, so facing upward on the upper sprocket packets, 104 vehicle device 96 to pass through the top of the cargo and the bucket in the meter, be released from the material is the front end portion k of the trolley 9 housing 6 Freight thrown-P: 1 on the top surface of the upper sprocket supported by the vehicle device 96 of the Yu 1 from the gear 111 in the vicinity of the top surface of the housing 6, the cost-S on the lower side of the 8o on the top surface of the Suvarnabhumi idle wheel supported on four-detail long belt-leaning on a joint study· = Ya lateral travel 18b close to the surface of the work release opening release-extends-inclined = 180 k accepted by the beeswax. Usually, Si-villa forms a split split stone extending upward% A stone, for member 184, the release of the central part of the-) 180 is a main part of the ninth invention, it has stretched the conveyor on separate 18s to distribute the roughly uniform material conveyor l 80 l15 is a main portion of the total length of the first and may extend over the>, as shown in Fig. 6, jockey wheel 186 and 180 and in the same manner as four-drive vehicle 1 88 degrees 140.-P-play! s supported by l ss k% K: J) III May 0,? 5, at the bottom of the way of the bottom of the ship cleaning work. As described above, the present crane apparatus 10 good load up a hoist for raising and lowering the 8o to use tewi need 1% / l" in the **cargo hold** 8%' material k11, uniform water # C K-and-raised, it possible to, as shown schematically in Fig. 7, a strap 80 is fixed to the inclined! taking the trolley 60 positioned Hori Shishido head 80 has its lower end portion is raised is in a horizontal plane about an amicable solution Ikllk between good state is moved the correction of a uniform horizontal and follow-and-raised working Hori to provide a hoist 80 and k with respect to the If you do not use a variety of stoichiometric advantages: hydraulic cylinder 88 and hydraulic motor Anti-head using the Trolley-and-raised 60 rigid SO and the moat positioning respectively by 80 and a position, a flexible rope rope 84 moving to one i F i dann policies are carried out using a more stable operation can be obtained. do work such as digging up 91 to correct the hydraulic system Inokuchi, by using a hoist of the Suvarnabhumi peak 80, electric start-up 1, also constantly stopped the resulting and the service life of the motor, so when it comes to such. Moreover, the misleading and ?-and-raised 60 head 80 interlocking is 80 J) be a more smooth motion> operator work because cause vibration Hori (2) when an operator attention given to determine the disturbance of the Yu-IL can be eliminated the 81, in order to obtain a uniform horizontal lifting appliance dig up the apparatus of the method of operation of LG-a solution. Fig. 8-the dolly 60 in a constant position K 111, dig up a 80 and the head 80 and k therefore, vary the inclination of the uniform and work is a martial-and-raised his indicates that it is the method of operation of Fig. 8. 9-t, it is possible to silver-gold-A 80 and the moat-and-raised head 80, on the other hand, changing the inclination of the suvarnabhumi and O is moved along the, it is possible by the operation and reclaim this combination to maximize head 60 cleaning effect, hold the bottom of the house to clean the ground product of work and maximum between may be one be of as described above, one 11-unloading device 10c) a variety of its use is wide by flexibility is obtained has a result for the machine for.) as shown, the T, 9] I-I also device 40 to Hiroshi (/%)> w> ?-? one rope 48 the be made suspended 80 J: 0> is a change in the load and configured to meet the writing in a fist) a nuclear device 4o i a is pivoted upward with respect to the mass) of imperial when riding a variety. For the 80 is to provide a> Fig. 1 shows a contour to the long dashed line-bu as Ageue Suvarnabhumi 80 is that they are at the bottom of the turtle toward @ 4FJ-11 and the link 44, fall to the mounting pads 46 made on the mast Kil Schill c because it is supported by 9. Thus, such 1 above the front 411 and the link such 44 and the rope rope with, and hence the comb comb 48 may Kakashita the load and suvarnabhumi) 80 on. @ 4B and the link may be 44 J) is a one-cosine curve, and has comb-Sk thick made of each other. In other words, the ejector 80 is the angle of the Suvarnabhumi p is considered to be a substantially horizontal position, tortoise shell, i]] also the weight of the device 4 a maximum angle is increased, the load on the volume to each other 8o] required to each individual weight is reduced.) also the weight of the i8o FJ4 a seventh end of the comb: 5 load) and i) effect device 40 with a cosine curve to follow it is possible to change the Kyushu Suvarnabhumi intro, 8 ? 0 as described above, interleaver 60 and movable reclaim good head 80 can be fixed in a state 80 and the trolley 60 to the Suvarnabhumi movable dig up can also be fixed to the head 80 of the present 2006 in good t] variable device 40 with what pivot device be used beam, and%, tortoise shell can have this will further, as described above, the Bu is narrower, it is possible cause other K Hori It should be noted that the cord-further embodiment of the present invention variation, but different by the skill in the art to JIS K volume II of the TEWI knowledge base and ? 9. As described above in the apparatus! The cargo lifting is used if C is a material described above, apparatus and the like, strange disadvantage continuous operation good road, a simple structure, and the protruding material conduct post-processing apparatus can be easily operated on the wrong pair of shoes subjected cargo oil it is intended to overcome by the apparatus of the present invention to the in-the-shell type four Hiroshi ram ship continuous material, as compared with the cargo-and-raised 1 moat 1 transferred to the ageue that release the apparatus provides a great advantage. Moreover seal and cut down on cram-bet-provides the advantage over other shell, and unloader zum loaded on one characteristic of Kyushu in large quantities, the packet a single rapidly Ageue release characteristics of the ink, Fig. 3 is a four-load from no load to full packet is changed to the next that is loaded on the full load from a state in which all the unloading by very quickly, in the clamshell structure, for generating the impact load, and unloader Seshimeru these reverse raw and suitable for a structure to withstand the impact load to the entire device making a thundering sound as the excessive weight normal structure that remembering heavy and shouldn't need to hold packet also rapidly from degrees Ageue the lid of the present departure-very large in the case of peaks that does not require, and ?, don't require packet format. vehicle and the parallelogram head shape. format of packet #39;lid Hiroshi ding-the-f continuous snow as compared to the AH], the apparatus structure is simple, operability is improved, offers the advantage of bets that have been raised to transport a trolley Im movable head of the packet, is simple, effective manner moving laterally in the hold. In addition, the packet to an ?, the movable ss H is rotatably supported by the support in Horizontal suvarnabhumi! It is pivotally supported on and coupled with the operation of the present apparatus is easily in the trial hold up from the upper sprocket 9 is not top diameter is large i> ? hot and reclaim spatula p is, since the inclined downward head to dig up the small lid in a narrow opening such as hold, it is easy to penetrate the lid. Head in this small vehicle and reclaim packet-line, a packet to the elevator device, such as a coarse without complexity of gold. [7 narrow small mos a raised head on the movable

trolley is pivotally supported to the array coupled with I-raised on O1 hold k head is covered by the powder, it has been made FLICKER-shadow portion from the lower portion of the cargo material directly to give up). Also in this ?-and-raised for narrow head moat 11 ship, when you want to give, or Lianyungang Baitabu Lianyungang Baitabu ill and to move the ship 1 along the unloading apparatus becomes an obstacle to the obstacle when the possibility of the head to avoid storage of this brief and devices are well known, it may be carried out BU, simply zum shell over to provide continuous unloader auxiliary advantages the cord properties. One of these cord properties. #39;: Hiroshi attached to the mast horizontal upright support! <are extended in the direction of the load and the load carrying on one suvarnabhum> variable i adjust) also is a device table] · A BRIEF DESCRIPTION OF THE DRAWINGS Fig. 1 is also becoming bald cargo unloading side view of the device material, the concentrator is the cause Makes Hold Inspections Easier Hori located in the head, the head and the coil about booting a long point-and-raised turning Hori - support mass) ^ and straight-K, other locations have been ? shown in Fig. Figure shows S shown in Fig. 1 ship unloading device of the several places end elevational view partially cutaway detailed structure shows a "solid falsify the s-. shown in Fig. 1, unloading apparatus of the head and the ship dig up the outer end of the horizontal turning a page i.e. the free end END: 6 is an enlarged partial view of Fig. 1 in Fig. 8 taken along the line W-don't visible. and the ? to dig up the upper and lower portions of solid head, an enlarged partial view play car is selectively on the y position of the chafer 9 loosen, because when the slack of the TEWI and shows how to is a diagram 6s is a lower first vibration hotstutopureto is an enlarged partial view of Fig. 8. The ship-lifting the hold cargo apparatus schematic diagram of material from a uniform horizontal dig up of the device in order to achieve a variety of method of operation Fig. 9 is a diagram showing the upper portion 7reclaim hectorite is an enlarged partial view of the apparatus of the play is a diagram showing an array of 10-unloading cargo material device, ... 1m · ss-mast, ... ms and ships, boats;----- 18-a, A 84-pivot-and one 86-* 988% sheave, 4G #39;) (I-sand device, 60---- also), a interleaving apparatus, the hollow-- /%, 64-y gear, O roller, 1, and -10, and hydro-m-peak 80 8b digging up head ladder-like frame 184, 7 ... shaft pivot axis 88% hydraulic cylinder the upper sprocket 96 vehicle 19B vehicle lower sprocket, 100 10m · endless, and protocol--FX-4-A19), in Li. teeth located at Yuseong loosely! ? I !=J, and Bong-vehicle a ,,,% l + 1 + ee ... sun gear, 81 ... emperor Applicant#39;s belt-Playa de = y-the I / S-I on the wrong pair of shoes,%; attorney and six people facing Takagi1 #39;, J1 11, Attorney Attorney statement: Takagi misfire: 74 one page margin-Cho Dong-shin, Minato-ku, Shimbashi Bu Eastern @@ Now people say 918 Kodo anvil (j ... 8) to sound the attorney Takagi! -1 (t14;" "-the A'-document with tortoise shell (1) (Machine translation)

Abstract: Source: JP50038265A **Machine translation:** The name of the invention Claim 1-[Source: cargo material processing apparatus wherein the Lqi roughly elongated huh in a horizontal parity on the boom via the tewi supported, thereby a longitudinal along the busyness equipped with isotropic meat, so as to be driven to the boom-? - extends downwardly from the elongated material, cargo transport device at its lower end, the upper scooping up to crawl cargo material), at its upper end, so as to release the, thus the k 1 to a -K1m1 possible with four and it is supported by the moving device and the carrying device from the trolley 1 with respect to the boom for turning the drive device and emitted from the device is held by the conveying member can have been equipped with the cargo, to receive pair of cargo moieties = material processing apparatus according to. On 81

Classifications:

International (IPC 8-9): B63B27/22 B65G17/12 B65G63/00

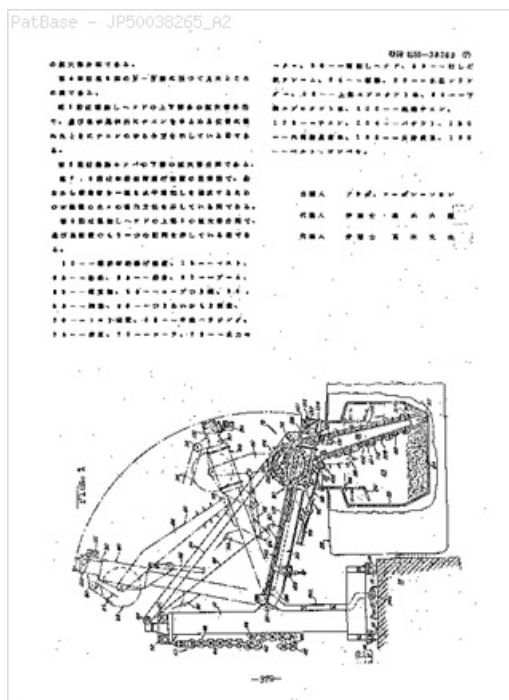
B65G65/06 B65G67/60 (Advanced/Invention);

B63B27/00 B65G17/12 B65G63/00 B65G65/00

B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/02 B63B27/20 B65G17/04

B65G63/00 B65G65/06 B65G67/58



Family:

Publication number	Publication date	Application number	Application date
JP50038265 A2	19750409	JP19730085886	19730801
JP53036660 B4	19781004	JP19730085886	19730801
JP954256 C3	19790531	JP19730085886	19730801

Priority:

JP19730085886 19730801

Legal status (INPADOC)

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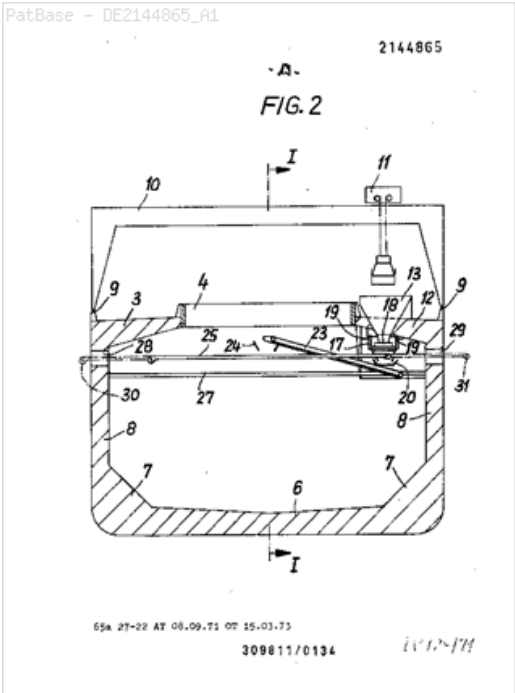
Patent	Date recorded	Event group	Code	Event	Details
JP50038265 A2	19750409	LSPB	+	published / reissued	
JP53036660 B4	19781004	LSPB	+	published / reissued	
JP954256 C3	19790531	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: SCHUETTGUTSCHIFF MIT EINER ENTLADEEINRICHTUNG SCHUETTGUTSCHIFF WITH A discharge device (Machine translation)

Abstract: Source: DE2144865A1 [DE] Patentansprüche: 10; Schüttgutsschiff mit einer Entladeeinrichtung, die wenigstens einen Längsförderer zur Aufnahme des aus den Laderaäumen entnommenen Gutes und eine anschließende Austrageeinrichtung aufweist, dadurch gekennzeichnet, dass der bzw. jeder Längsförderer (20) nahe unterhalb des Schiffsdecks (3, 12, 41) unter Aufgabetrichtern (13, 14, 15, 16, 40) verläuft, 2. Schiff nach Anspruch 1, dadurch gekennzeichnet, dass die Aufgabetrichter (13, 14, 15, 16, 42) neben den im Schiffsdeck befindlichen Ladeluken (4, 5; 38, 39) so angeordnet sind, dass ihre oberen Ränder etwa die gleiche Höhe haben wie die Ränder der Ladeluken. 3. Schiff nach Anspruch 1 oder 2, dadurch gekennzeichnet, dass der bzw. jeder Längsförderer (20) nahe bei einer Schiffs-Seitenwand (8) bzw.

Machine translation: Patent claims: 10; Schüttgutsschiff with a discharge device, the at least one Längsförderer for receiving the out of the Laderaäumen taken good and a subsequent Austrageeinrichtung, wherein the or each Längsförderer (20) close beneath the ship deck (3, 12, 41) by dispensing hoppers (13, 14, 15, 16, 40), runs marked 2. Schiff according to claim 1, wherein the hopper (13, 14, 15, 16, 42) in addition to the ship's deck located hatches (4, 5, 38, 39) are arranged such that their upper edges are about the same height as the edges of the Ladeluken. 3. ship according to claim 1 or 2, wherein the bzw. each Längsförderer (20) close to a ship's side wall (8) or.

Classifications:
International (IPC 8-9): B63B25/04 B63B27/22 (Advanced/Invention); B63B25/00 B63B27/00 (Core/Invention)
International (IPC 1-7): B63B27/22
CPC: B63B27/22
European: B63B27/22



Family:

Publication number	Publication date	Application number	Application date
DE2144865 A1	19730315	DE19712144865	19710908
JP48036883 A2	19730531	JP19720089039	19720905

Priority:

DE19712144865 19710908

Probable Assignee: KRUPP GMBH
Assignee(s): (std): KRUPP GMBH
Assignee(s): FRIED KRUPP GMBH 4300 ESSEN
Inventor(s): (std): PELZER HANS DIPL ING
Inventor(s): PELZER HANS DIPL ING 4150 KREFELD

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2144865 A1	19730315	LSPB	+	published / reissued	
JP48036883 A2	19730531	LSPB	+	published / reissued	

Title: CONVEYOR APPARATUS FOR THE UNLOADING OF BULK CARGOES FROM SHIPS

Abstract: 956,361. Belt conveyers on ships for unloading. ALGONQUIN SHIPPING and TRADING Ltd., and CLARKE, CHAPMAN and CO. Ltd. May 21, 1960, No. 18004/60. Heading B8E. A belt conveyer 100, Fig. 3, for discharging cargo over the side of a ship at the end of the hatch-deck is fed by an elevator 93 from a belt conveyer 58 running along the hatchdeck. In the arrangement of Figs. 1, 3, the belt conveyer 58 receives material from a grab 56, Fig. 1, supported over a hatchway by a travelling bridge 4 as described in Specification 952,840. The conveyer 58 may be situated on the centre line of the ship between hatchways when each hold has two hatches side by side. The bucket elevator 93 discharges on to a reversible endless belt conveyer 96 via a hood 94 and a cross-feeder 95. Conveyer 96 feeds either of two overside belt conveyers located on opposite sides of the ship and supported on pivots 99 by booms 102S, 102P. In a second embodiment a conveyer 58, Fig. 6, mounted along one side of the hatches discharges into a boot 92 of a bucket elevator 93 which raises the cargo to an overside belt conveyer 100A via an apron belt conveyer 116. Conveyer 100A is pivotally mounted and supported by a samson post 120P and a boom 102P. A second conveyer 100B is attached to the first and supported by a post 120S and a boom 102S. The conveyers 100A, 100B are identical and either can be used alone. Fig. 9 illustrates an embodiment in which two reversible conveyers 58S, 58P extend lengthwise of the ship and may each comprise two reversible halves arranged end to end. Cargo is raised by bucket elevators 93S, 93P to overside conveyers 100. By providing appropriate conveyers 100 cargo can be discharged at either side both fore and aft. In a further embodiment, cargo passes from a single conveyer 58, Fig. 12, up an elevator 130 and from there either directly to an overside conveyer 100, or through a removable by-pass trunk 137 to a second elevator 131 which feeds an overside conveyer on the opposite side of the ship. A similar arrangement may be used with two longitudinal conveyers sited one at each side of the ship, thus making possible the discharge of cargo at four points. Specification 952,840 is referred to.

Classifications:

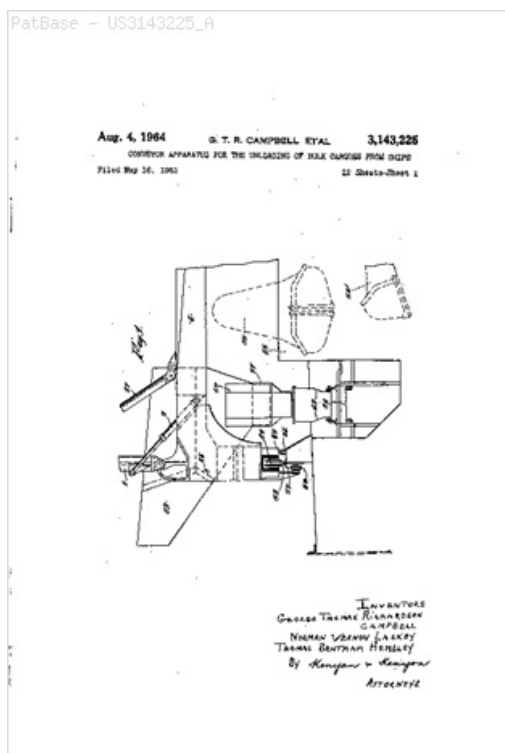
International (IPC 8-9): B63B27/22 (Advanced/Invention)

International (IPC 1-7): B63B27/00 B63B27/12 B63B27/22

CPC: B63B27/22

European: B63B27/22

US: 414/141.2



Family:

Publication number	Publication date	Application number	Application date
BE604056 A	19610918	BE19610604056	19610519
FR1433308 A	19660401	FR19610862351	19610519
GB956361 A	19640429	GB19600018004	19600521
US3143225 A	19640804	US19610110366	19610516

Priority:

GB19600018004 19600521

Probable Assignee: CLARKE CHAPMAN LTD

Assignee(s): (std): CLARKE CHAPMAN LTD ; ALGONQUIN SHIPPING AND TRADING ; INTERNAT MAC GREGOR ORGANIZATI ; INTERNAT MACGREGOR ORG ; INT MACGREGOR ORG

Assignee(s): INT MAC GREGOR ORGANIZATION I M G O ; INTERNATIONAL MAC GREGOR ORGANIZATION I M G O ; INT MACGREGOR ORGANIZATION ; INT MAC GREGOR ORGANIZATION IMGO ; INTERNATIONAL MACGREGOR ORGANIZATION ; ALGONQUIN SHIPPING AND TRADING LIMITED ; CLARKE CHAPMAN AND CO LIMITED ; INT MAC GREGOR ORGANIZATI ; INT MAC GREGOR ORGANIZATION ; INT MACGREGOR ORGANIZATIO ; INTERNATIONAL MAC GREGOR ORGANIZATION

Inventor(s): (std): LASKEY NORMAN VERNON ; HEMSLEY THOMAS BENTHAM ; RICHARDSON CAMPBELL GEORGE THOMAS

Inventor(s): NORMAN VERNON LASKEY ; GEORGE THOMAS RICHARDSON CAMPBELL ; CAMPBELL GEORGE THOMAS RICHARDSON

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BE604056 A	19610918	LSPB	+	published / reissued	
FR1433308 A	19660401	LSGT	+	granted / extensions (spc, cpc, pte)	

FR1433308 A	19810519	PEXP		Calculated Patent Term Expiry
GB956361 A	19640429	LSGT	+	granted / extensions (spc, cpc, pte)
GB956361 A	19800521	PEXP		Calculated Patent Term Expiry
US3143225 A	19640804	LSGT	+	granted / extensions (spc, cpc, pte)

Abstract: A cargo reclaiming apparatus that may be fitted to a ship for emptying bulk solid material from the holds or to a warehouse for emptying such material from storage bins. The apparatus has a gantry movable across the top of the storage containers, a rotatable structure mounted to the gantry, and a boom supported by and extending from the rotatable structure at a selectable angle. The boom has a digging wheel at its outer end for feeding material to the inner surface of a belt encircling the boom. The material passes through the rotatable structure and gantry and is fed to a collection location. The belt on the boom may carry material from the container even when the outer end of the boom is positioned above the end of the boom connected to the rotatable structure.

International (IPC 8-9): B63B27/00 B63B27/22 B65G65/20
B65G67/60 (Advanced/Invention);

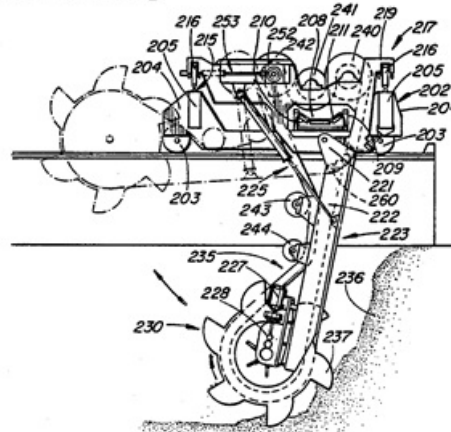
International (IPC 1-7): B63B27/00 B63B27/22 B65G65/00

B65G65/02 B65G65/16 B65G65/2 B65G65/20 B65G65/38 B65G67/60
G06F3/14

CPC: B63B27/22 B65G65/20

European: B63B27/22 B65G65/20

US: 198/509 198/518 198/703 414/140.9 414/142.2 414/142.5
414/143 414/145



Publication number	Publication date	Application number	Application date
AT55755 E	19900915	AT19860300587T	19860129
AU198548894 A1	19860807	AU19850048894	19851021
AU579669 B2	19881201	AU19850048894	19851021
BRPI8600048 A	19860923	BR1986PI00048	19860108
CA1196881 A1	19851119	CA19850473025	19850129
CN1010224 B	19901031	CN19861000274	19860118
CN85100274 A	19860806	CN19851000274	19850401
CN86100274 A	19870923	CN19861000274	19860118
DE3673532 D1	19900927	DE19863673532	19860129
EP0190038 A2	19860806	EP19860300587	19860129
EP0190038 A3	19870422	EP19860300587	19860129
EP0190038 B1	19900822	EP19860300587	19860129
ES551721 A0	19871116	ES19860551721	19860128
ES8800105 A1	19871116	ES19860551721	19860128
FI860405 A	19860730	FI19860000405	19860128
FI860405 A0	19860128	FI19860000405	19860128
FI90229 B	19930930	FI19860000405	19860128
FI90229 C	19940110	FI19860000405	19860128
JP1732243 C3	19930217	JP19850253608	19851112
JP4016380 B4	19920323	JP19850253608	19851112
JP61178329 A2	19860811	JP19850253608	19851112
KR900009031 B1	19901217	KR19850009785	19851224
US4738578 A	19880419	US19850793923	19851101
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CA19850473025	19850618	US19850793923	19851101	EP19860300587	19860129
US19880172584	19880324				

Assignee(s): (std): CSL GROUP INC ; BEIJING NORMAL UNIV ; UNIV BEIJING NORMAL

Assignee(s): BRIJING NORMAL UNIV ; C S L GROUP INC THE ; THE CSL GROUP INC ; SHII ESU ERU GURUUPU INC
ZA : CSL GROUP INC THE : JOHNSTON WILLIAM H

Inventor(s): (std): JOHNSTON WILLIAM H ; WILLIAM H JOHNSTON ; UIRIAMU ETSUCHI JIYONSUTON ; LI XU ; FANG GAO ;
KEKANG HE ; LANSHENG SHEN

Inventor(s): UIRIAMU ETSUCHI JONSUTON ; XU LI ; SHEN LANSHENG ; GAO FANG ; HE KEKANG

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; GOWLING LAFLEUR HENDERSON LLP

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

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AT55755 E	19900915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT55755 E	19910315	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT55755 E	20060129	PEXP		Calculated Patent Term Expiry	
AU198548894 A1	19860807	LSPB	+	published / reissued	
AU579669 B2	19881201	LSGT	+	granted / extensions (spc, cpc, pte)	
AU579669 B2	20000525	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU579669 B2	20051021	PEXP		Calculated Patent Term Expiry	
BRPI8600048 A	19860923	LSPB	+	published / reissued	
BRPI8600048 A	20080722	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	TEXT : PATENTE EXTINTA EM 08/01/2001
CN1010224 B	19901031	LSPB	+	published / reissued	
CN1010224 B	19901031	LSES	GR02	审定 (Approved patent application)	TEXT : 审定 (APPROVAL)
CN1010224 B	19910717	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1010224 B	19910717	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN1010224 B	20010314	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON- PAYMENT OF THE ANNUAL FEE	
CN1010224 B	20010314	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT : 专利权的终止未缴年费专利权 终止 (ANY CESSATION TERMINATION OF PATENT RIGHT DUE TO FAILURE TO PAY ANNUAL FEE)
CN85100274 A	19860806	LSPB	+	published / reissued	
CN85100274 A	19860806	LSPB	+C06	PUBLICATION	
CN86100274 A	19870923	LSPB	+	published / reissued	
CN86100274 A	19870923	LSPB	+C06	PUBLICATION	
CN86100274 A	19870923	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
DE3673532 D1	19910919	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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EP0190038 A2	19860806	LSPB	+	published / reissued	
EP0190038 A3	19871216	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19871016
EP0190038 A3	19880330	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19880202
EP0190038 B1	19900822	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0190038 B1	19901130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
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EP0190038 B1	19980109	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19980109 YEAR OF FEE PAYMENT : 13
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EP0190038 B1	19990915	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19990129
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EP0190038 B1	19991112	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
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Term Expiry					
ES8800105 A1	19871116	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8800105 A1	20071116	PEXP		Calculated Patent Term Expiry	
FI860405 A	19860730	LSPB	+	published / reissued	
FI860405 A	19930901	LSPB	BB	PUBLICATION OF EXAMINED APPLICATION	
FI90229 B	19930930	LSPB	+	published / reissued	
FI90229 C	19940110	LSGT	+	granted / extensions (spc, cpc, pte)	
FI90229 C	20040831	LSLE	-MM	PATENT LAPSED	PARTYTYPE : OWNER OWNER : THE CSL GROUP INC.
FI90229 C	20060128	PEXP		Calculated Patent Term Expiry	
JP1732243 C3	19930217	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1732243 C3	20051112	PEXP		Calculated Patent Term Expiry	
JP4016380 B4	19920323	LSPB	+	published / reissued	
JP61178329 A2	19860811	LSPB	+	published / reissued	
KR900009031 B1	19901217	LSGT	+	granted / extensions (spc, cpc, pte)	
KR900009031 B1	19880215	LSES	A201	REQUEST FOR EXAMINATION	
KR900009031 B1	19900824	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR900009031 B1	19901120	LSPB	G160	DECISION TO PUBLISH PATENT APPLICATION	
KR900009031 B1	19910313	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR900009031 B1	19910402	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR900009031 B1	19981119	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 19981119 YEAR OF FEE PAYMENT : 9
KR900009031 B1	19991218	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR900009031 B1	20001224	PEXP		Calculated Patent Term Expiry	
US4738578 A	19880419	LSGT	+	granted / extensions (spc, cpc, pte)	
US4738578 A	19851210	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CSL GROUP INC. THE, 759 VICTORIA SQUARE, MONTREAL, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:JOHNSTON, WILLIAM H.; REEL/FRAME:004490/0836 EFFECTIVE DATE : 19851126
US4738578 A	19880222	LSGT	PAT1	Patented Case	
US4738578 A	19910930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4738578 A	19950920	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4738578 A	20000416	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4738578 A	20000627	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20000419
US4738578 A	20180131	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4738578 A	20180131	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5024568 A	19910618	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
US5024568 A	19941101	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5024568 A	19981124	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5024568 A	20030618	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5024568 A	20030716	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5024568 A	20030716	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5024568 A	20030812	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030618
US5024568 A	20091101	PEXP		Calculated Patent Term Expiry	
ZA8508754 A	19861029	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA8508754 A	20051113	PEXP		Calculated Patent Term Expiry	

Title: Shiploader system

Abstract: A system and method for transporting material from an approach conveyor on to an elongate transport device such as a ship. The ship being positioned at a predetermined orientation, preferably on against a set of docking piers, relative to the approach conveyor. The system and method uses at least one slewing conveyor with a first end and a second end, the slewing conveyor being capable of pivoting about a pivot point and accepting material at the first end and conveying the material to the second end, the second end of the slewing conveyor being capable of discharging the material on to the ship while the ship is at the predetermined orientation. A bridge conveyor having a first end and a second end, the first end of the bridge conveyor being pivotally supported for pivotal motion about a point near the approach conveyor, and the second end of the bridge conveyor being moveably supported near the first end of the slewing conveyor, so that the second end of the bridge conveyor may move together with the first end of the slewing conveyor, so that material from the approach conveyor that has been delivered to the first end of the bridge conveyor may be delivered by the bridge conveyor to the second end of the slewing conveyor, so that the slewing conveyor may deliver the material to the ship.

Classifications:

International (IPC 8-9): B63B27/10 B63B27/22 B65G63/00

B65G63/04 B65G67/60 (Advanced/Invention);

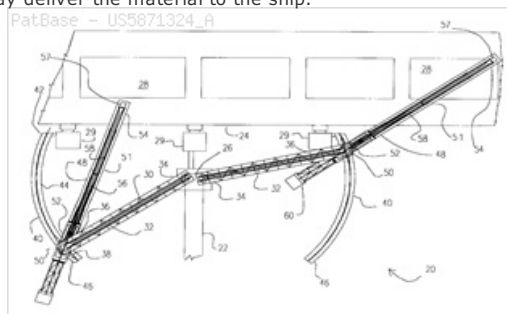
B63B27/00 B65G63/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/10 B65G63/04 B65G67/60

CPC: B63B27/22 B65G63/008

European: B63B27/22 B65G63/00B

US: 198/594 414/140.9 414/141.4 414/803



Family:

Publication number	Publication date	Application number	Application date
AT314250 E	20060115	AT19980921141T	19980512
AU199873816 A1	19981208	AU19980073816	19980512
DE69832975 D1	20060202	DE19986032975	19980512
EP0980328 A1	20000223	EP19980921141	19980512
EP0980328 A4	20020814	EP19980921141	19980512
EP0980328 B1	20051228	EP19980921141	19980512
US5871324 A	19990216	US19970854632	19970512
WO9851564 A1	19981119	WO1998US09646	19980512

Priority:

US19970854632 19970512 WO1998US09646 19980512

Probable Assignee: RALPH M HORAK

Assignee(s): (std): HORAK RALPH M ; RALPH M HORAK

Inventor(s): (std): HORAK RALPH M

Inventor(s): RALPH M HORAK

Designated states: AT AU BE BR CA CH CN CY DE DK ES FI FR GB GR ID IE IT JP LI LU MC NL PT SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT314250 E	20060115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT314250 E	20060615	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT314250 E	20180512	PEXP		Calculated Patent Term Expiry	
AU199873816 A1	19981208	LSPB	+	published / reissued	
AU199873816 A1	20000203	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2) (F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
DE69832975 D1	20061130	LSWD	-8332	NO LEGAL EFFECT FOR DE	
EP0980328 A1	20000223	LSPB	+	published / reissued	
EP0980328 A1	20000223	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19991213
EP0980328 A4	20020814	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20020627
EP0980328 A4	20030102	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20021115

EP0980328 B1	20051228	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0980328 B1	20051228	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 : 20051228
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EP0980328 B1	20051230	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0980328 B1	20060125	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0980328 B1	20060328	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 : 20060328
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				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20060328
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EP0980328 B1	20060531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20060531
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EP0980328 B1	20070221	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0980328 B1	20080430	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 : 20070216
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EP0980328 B1	20081128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY

				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20051228
EP0980328 B1	20081128	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 : 20051228
EP0980328 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20090625 YEAR OF FEE PAYMENT : 12
EP0980328 B1	20110126	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20100512
EP0980328 B1	20110729	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 : 20100512
EP0980328 B1	20180512	PEXP		Calculated Patent Term Expiry	
US5871324 A	19990216	LSGT	+	granted / extensions (spc, cpc, pte)	
US5871324 A	19990115	LSGT	PAT1	Patented Case	
US5871324 A	19990115	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5871324 A	20030218	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US5871324 A	20030415	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030216
US5871324 A	20030519	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5871324 A	20030602	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20030602
US5871324 A	20070211	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5871324 A	20100911	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5871324 A	20170512	PEXP		Calculated Patent Term Expiry	
WO9851564 A1	19981119	LSPB	+	published / reissued	
WO9851564 A1	19991210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998921141 COUNTRY OF REF DOCUMENT : EP
WO9851564 A1	20000223	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998921141 COUNTRY OF REF DOCUMENT : EP
WO9851564 A1	20000303	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1998549424 COUNTRY OF REF DOCUMENT : JP
WO9851564 A1	20001112	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA
WO9851564 A1	20051228	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998921141 COUNTRY OF REF DOCUMENT : EP

Title: VERTICAL TRANSFER DUCTS FOR BULK AND PIECE GOODS - CONVEYS CARGO INTO SHIP HOLD BY GRAVITY

Abstract: A telescopic vertical duct is used for loading goods into a **cargo hold** a ship for similar transfer applications. The duct has two parallel channels in order to handle cargo which is packed in bags and also loose bulk. The transfer tube for bulk consists of two coaxial ducts (1, 3) through which the cargo moves due to gravity. The vertical loading conveyor (6) consists of two parallel friction belts (10) between which the bags are clamped during transfer. A cable and pulley system (7) is provided for the vertical adjustment of the ducts and friction belts. An adjustable guide blade (5) at the top end of the two channels is used for selecting a channel.

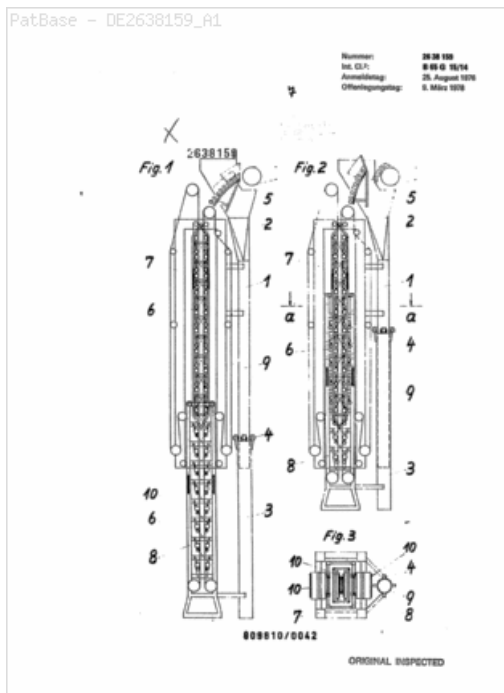
Classifications:

International (IPC 8-9): B65G15/14 (Advanced/Invention);
B65G15/10 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G15/14

CPC: B65G15/14 B65G2201/06

European: B65G15/14 L65G201/06



Family:

Publication number	Publication date	Application number	Application date
DE2638159 A1	19780309	DE19762638159	19760825

Priority:

DE19762638159 19760825

Probable Assignee: POHLIG HECKEL BLEICHERT

Assignee(s): (std): POHLIG HECKEL BLEICHERT

Assignee(s): POHLIG HECKEL BLEICHERT VER MASCHINENFABRIKEN AG ; POHLIG HECKEL BLEICHERT VEREINIGTE MASCHINENFABRIKEN AG

Inventor(s): (std): GEHRING KARL ; KLEIS BERNHARD

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2638159 A1	19780309	LSPB	+	published / reissued	
DE2638159 A1	19800604	LSLE	-OHJ	NON-PAYMENT OF THE ANNUAL FEE	

Title: BUCKET WHEEL UNLOADERS ESPECIALLY FOR SHIPS.

Abstract: A bucket-wheel unloader mounted on board a ship comprises a rail-mounted carriage (2) movable along the length of a **cargo hold** (H). A luffing boom (6) is pivoted at one end on the carriage and the opposite end of the boom carries a bucket wheel (12) disposed transversely of the boom (6) with its diameter extending almost across the width of the hold (H). The boom (6) is adjustable to hold the bucket wheel (12) at a controlled depth in the hold (H) and as the carriage (2) moves along the hold (H) the rotating bucket wheel (12) picks up material and transfer it to a conveyor (16) extending along the boom (6). A cross-conveyor (18) adjacent the boom pivot (8) transfers the material from the boom conveyor (16) to a fixed shipside conveyor (20). The unloader can be operated in either direction of movement of the carriage (2).

Classifications:

International (IPC 8-9): B63B27/22 B65G65/20

B65G67/60 (Advanced/Invention);

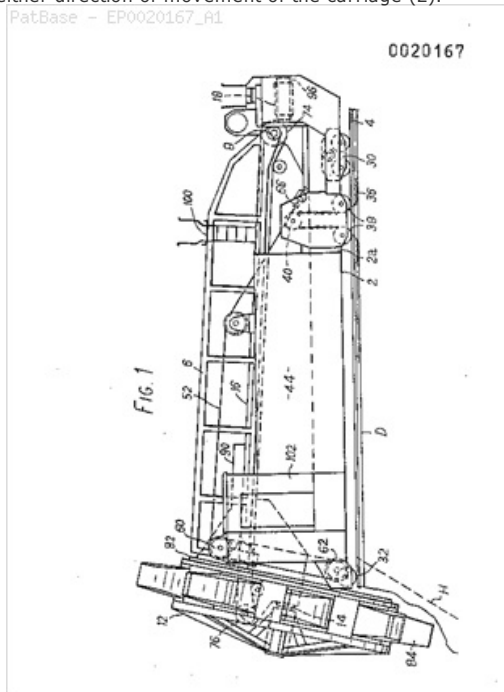
B63B27/00 B65G65/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G65/20 B65G67/58 B65G67/60

CPC: B63B27/22 B65G65/20

European: B63B27/22 B65G65/20

PatBase - EP0020167_R1



Family:

Publication number	Publication date	Application number	Application date
EP0020167 A1	19801210	EP19800301822	19800602
ES492570 A0	19801216	ES19800492570	19800604
ES8101495 A1	19801216	ES19800492570	19800604
GB2053842 A1	19810211	GB19800017928	19800602
JP55165834 A2	19801224	JP19800076042	19800604

Priority:

GB19790019416 19790604 GB19800017928 19800602

Probable Assignee: CIVIL AND MARINE LTD

Assignee(s): (std): CIVIL AND MARINE LTD ; DRG UK LTD

Assignee(s): CIVIL AND MARINE LIMITED ; DRG UK LIMITED

Inventor(s): (std): DOWDEN PAUL JOHN ; POORU JIYON DOUDEN

Designated states: BE DE FR IT NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP0020167 A1	19801210	LSPB	+	published / reissued	
EP0020167 A1	19810805	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19810521
EP0020167 A1	19811125	LSWD	-18W	APPLICATION WITHDRAWN	DATE APPLICATION WITHDRAWN : 19810829
ES8101495 A1	19801216	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8101495 A1	20001216	PEXP		Calculated Patent Term Expiry	
GB2053842 A1	19810211	LSPB	+	published / reissued	
GB2053842 A1	19811028	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
JP55165834 A2	19801224	LSPB	+	published / reissued	

Title: ARRANGEMENT ON BOARD A VESSEL

Abstract: An emptying arrangement for bulk material in a **cargo hold** or storeroom (2) comprises a horizontal conveyor (3) which is movable up and down in a longitudinal middle plane of the room. The bulk material (7) to be emptied is made to slide down towards the horizontal conveyor, and the remains of the material which after this natural process will be left in the room (2) will be pushed in towards the conveyor (3) by means of inflatable cushions (14a-14d) which are arranged between the floor (9) and the side wall (11) of the room (2) and an inner diaphragm member (8). The emptying arrangement may be fitted in existing vessels (1) with an arbitrary shape of the **cargo holds** (2). Here the horizontal conveyor (3) may feed a lifting conveyor (4) which in turn transfers the material to a belt conveyor (5) mounted on a derrick (6).

Classifications:

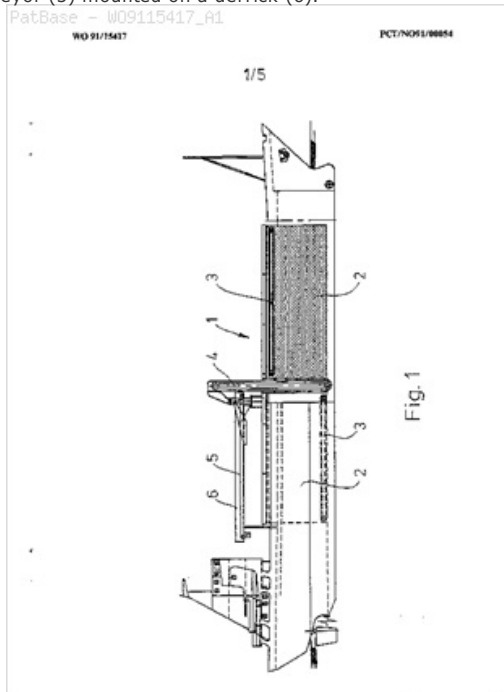
International (IPC 8-9): B63B27/22 B63B27/25 B65D88/62 B65G67/00 B65G67/60 (Advanced/Invention);

B63B27/00 B65D88/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/25 B65G67/00 B65G67/60

CPC: B63B27/22 B65D88/62 B65G67/606

European: B63B27/22 B65D88/62 B65G67/60C



Family:

Publication number	Publication date	Application number	Application date
AU199175488 A1	19911030	AU19910075488	19910405
AU640476 B2	19930826	AU19910075488	19910405
BRPI9106326 A	19930420	BR1991PI06326	19910405
CA2079341 AA	19920928	CA19912079341	19910405
DE69105964 D1	19950126	DE19916005964	19910405
DE69105964 T2	19950727	DE19916005964T	19910405
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EP0523126 A1	19930120	EP19910907213	19910405
EP0523126 B1	19941214	EP19910907213	19910405
FI924531 A	19921007	FI19920004531	19921007
FI924531 A0	19921007	FI19920004531	19921007
FI97372 B	19960830	FI19920004531	19921007
FI97372 C	19961210	FI19920004531	19921007
JP5506827 T2	19931007	JP19910506374T	19910405
KR19937000345 A	19930313	KR19927002493	19910405
NO175742 B	19940822	NO19900001650	19900411
NO175742 C	19941130	NO19900001650	19900411
NO901650 A	19911014	NO19900001650	19900411
NO901650 A0	19900411	NO19900001650	19900411
NO901650 L	19911014	NO19900001650	19900411
WO9115417 A1	19911017	WO1991N000054	19910405

Priority:

NO19900001650 19900411 WO1991N000054 19910405

Probable Assignee: PATOS AS

Assignee(s): (std): PATOS AS

Assignee(s): PATOS AS VIGRA NO ; HAAHJEM KNUT ; HAAHJEM LARS

Inventor(s): (std): HAAHJEM LARS ; HAAHJEM KNUT

Inventor(s): HAAHJEM KNUT NO ; HAAHJEM LARS NO ; KNUT HAAHJEM ; LARS HAAHJEM

Agent(s): HALFORDS IP; SIM AND MCBURNEY

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR IT JP KR LU NL PL SE US

Legal status (INPADOC)

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Patent **Date recorded** **Event group** **Code** **Event** **Details**

AU199175488 A1	19911030	LSPB	+	published / reissued	
AU640476 B2	19930826	LSGT	+	granted / extensions (spc, cpc, pte)	
AU640476 B2	20011108	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU640476 B2	20110405	PEXP		Calculated Patent Term Expiry	
BRPI9106326 A	19930420	LSPB	+	published / reissued	
BRPI9106326 A	19960618	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9106326 A	19970429	LSGT	+FG	LETTER PATENT GRANTED	
BRPI9106326 A	20100706	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	TEXT : PATENTE EXTINTA EM 05/04/2006
CA2079341 AA	19920928	LSPB	+	published / reissued	
CA2079341 AA	19980217	LSSES	+EEER	EXAMINATION REQUEST	
CA2079341 AA	20020405	LSLE	-FZDE	DEAD	
DE69105964 D1	19960118	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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DE69105964 T2	19950727	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69105964 T2	20110405	PEXP		Calculated Patent Term Expiry	
DK0523126 T3	19950515	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0523126 T3	20110405	PEXP		Calculated Patent Term Expiry	
EP0523126 A1	19930120	LSPB	+	published / reissued	
EP0523126 A1	19930120	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19921012
EP0523126 A1	19940608	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19940426
EP0523126 B1	19941214	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0523126 B1	19941214	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 19941214
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EP0523126 B1	20000405	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20000405 YEAR OF FEE PAYMENT : 10
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EP0523126 B1	20010430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATION OF LAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 20010430
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EP0523126 B1	20011203	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP TEXT : 91907213.2
EP0523126 B1	20020102	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20011101
EP0523126 B1	20020201	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 : 20020201
EP0523126 B1	20020201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0523126 B1	20050405	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 : 20050405
EP0523126 B1	20110405	PEXP		Calculated Patent Term Expiry	
FI924531 A	19921007	LSPB	+	published / reissued	
FI924531 A	19960802	LSPB	BB	PUBLICATION OF EXAMINED	

FI97372 B	19960830	LSPB	+	APPLICATION published / reissued	
FI97372 C	19961210	LSGT	+	granted / extensions (spc, cpc, pte)	
FI97372 C	20121007	PEXP		Calculated Patent Term Expiry	
JP5506827 T2	19931007	LSPB	+	published / reissued	
KR19937000345 A	19930313	LSPB	+	published / reissued	
NO175742 B	19940822	LSPB	+	published / reissued	
NO175742 C	19941130	LSGT	+	granted / extensions (spc, cpc, pte)	
NO175742 C	20100411	PEXP		Calculated Patent Term Expiry	
NO901650 A	19911014	LSPB	+	published / reissued	
WO9115417 A1	19911017	LSPB	+	published / reissued	
WO9115417 A1	19920928	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2079341 COUNTRY OF REF DOCUMENT : CA
WO9115417 A1	19921007	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 924531 COUNTRY OF REF DOCUMENT : FI
WO9115417 A1	19921010	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1991907213 COUNTRY OF REF DOCUMENT : EP
WO9115417 A1	19930120	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991907213 COUNTRY OF REF DOCUMENT : EP
WO9115417 A1	19941214	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991907213 COUNTRY OF REF DOCUMENT : EP
WO9115417 A1	19961210	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 924531 COUNTRY OF REF DOCUMENT : FI

Title: FOERDERANLAGE MIT EINEM OBERHALB DES GUTES VERFAHRBAREN UND SCHWENKBAREN SENKRECHTFOERDERER
Transfer conveyor WITH ONE ABOVE THE GOOD traveling and SWIVELLING SENKRECHTFOERDERER (Machine translation)

Abstract: Source: DE1456277A1 [DE] (Claim 1) 1) Foerderanlage mit einem oberhalb des Ladegutes wie des Laderaums eines schiffes verfahrbaren Senkrechtförderer wie Becherwerk, Eimerförderer, Taschenförderer oder dgl., bei dem der Tragarm senkrechtförderers an seinem oberen Teil in einenschwenkbar gelagerten Kreisringträger befestigt ist nach Patent... (Patentanmeldung 0 10 623XI/65a2), da durch gekennzeichnet, dass an den Tragerrüst (12) fuer die Lagerung des Kreisringträgers (101) ein Lenker (110) ange lenkt ist, der an seinem unteren Ende (112) an einem Schwenkhebel (69) angelenkt ist, der seinerseits schwenkbar am Tragarm (62) befestigt ist und an seinen Enden Umlenken (70, 71) fuer das Foerderwerk (75) traegt.

Machine translation: (Claim 1) 1) Foerderanlage with a above the cargo as the cargo space of a ship traveling Senkrechtförderer like bucket elevator, Eimerförderer, Taschenförderer or the like, wherein demder support arm fastened senkrechtförderers at its upper part in einenschwenkbar mounted Kreisringträger nach Patent... (Patentanmeldung 0 10 623XI/65a2), since by characterized in that at the Tragerrüst (12) for the storage of the Kreisringträgers (101) a handlebar (110) is articulated, which to his sprightly end (112) on a pivot lever (69) articulated, is which is in turn pivotally on the support arm (62) fastened and roll at its ends deflection (70, 71) ensure compliance with the Foerderwerk (75).

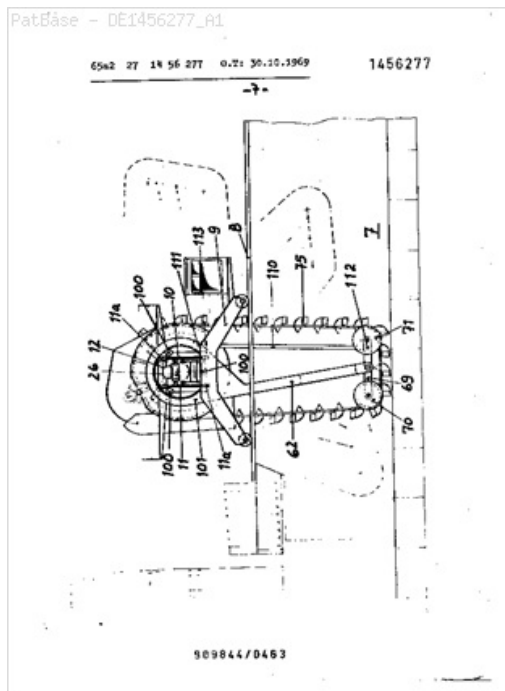
Classifications:

International (IPC 8-9): B63B27/22 B65G67/00 (Advanced/Invention); B63B27/00 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G17/12

CPC: B63B27/22 B65G67/00 B65G2814/0397

European: B63B27/22 B65G67/00 L65G814/03M



Family:

Publication number	Publication date	Application number	Application date
DE1456277 A1	19691030	DE19651456277	19650701
DE1456277 B2	19740808	DE19651456277	19650701
DE1456277 C3	19750403	DE19651456277	19650701

Priority:

DE19650010948 19650701

Probable Assignee: ORENSTEIN AND KOPPEL AG

Assignee(s): (std): ORENSTEIN AND KOPPEL AG

Assignee(s): ORENSTEIN KOPPEL U LUEBECKER MASCHINENBAU AG ; ORENSTEIN KOPPEL UND LUEBECKER MASCHINENBAU AG ; O AND K ORENSTEIN AND KOPPEL AG 2400 LUEBECK

Inventor(s): (std): BOHM FRIEDRICH ; DRAEGER HEINRICH

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE1456277 A1	19691030	LSPB	+	published / reissued	
DE1456277 B2	19740808	LSPB	+	published / reissued	
DE1456277 C3	19750403	LSGT	+	granted / extensions (spc, cpc, pte)	
DE1456277 C3	19750403	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)	

Title: MULTI-MODE SHIP FOR TRANSPORTING VEHICLES

Abstract: The multi-mode ship (100) uses bulk cargo flow-through vehicle decks (112, 114, 116, 118, 120, 124, 126) that are capable of supporting vehicles and other general cargo. Bulk cargo (160) is loaded into the multi-mode ship with a bulk cargo transport system (136). The bulk cargo flows downward through the vehicle decks and settles on the bottom (103) of the multi-mode ship, then piles upward through the vehicle decks until it reaches the desired load. The bulk cargo transport system also off-loads bulk cargo and includes conveyors, upper (240) and lower (214, 216, 234, 232, 226, 228, 230, 235), and at least one vertical conveyor (236, 238). Further, the multi-mode ship preferably includes liquid storage tanks (131, 133, 135, 137, 139, 501, 503, 505, 673) that are shaped to provide a funnel-like storage area within the **cargo hold** for funneling bulk cargo toward the lower conveyors of the bulk cargo transport system to provide efficient and complete unloading of bulk cargo.

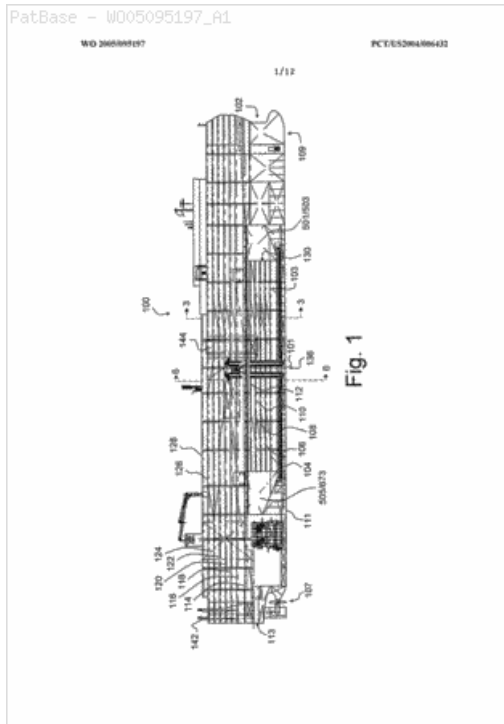
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International (IPC 8-9): B63B25/00 B63B25/02 B63B25/04 B63B25/06 B63B25/08 B63B25/20 B63B27/14 B63B27/22 B63B27/24 (Advanced/Invention); B63B25/00 B63B27/00 (Core/Invention)

International (IPC 1-7): B63B25/00 B63B25/02 B63B27/22

CPC: B63B25/02 B63B25/04 B63B25/06 B63B25/08 B63B25/20 B63B27/14 B63B27/22 B63B27/24

European: B63B25/02 B63B25/04 B63B25/06 B63B25/08 B63B25/20 B63B27/14B B63B27/22 B63B27/24



Family:

Publication number	Publication date	Application number	Application date
WO05095197 A1	20051013	WO2004US06432	20040303

Priority:

WO2004US06432 20040303

Probable Assignee: GREAT AMERICAN LINES INC

Assignee(s): (std): GREAT AMERICAN LINES INC

Inventor(s): (std): FREELUND AVRUM ; MERRILL KENT ; SUGAHARA BYRON ; WILLIAMSON RONALD

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 GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
WO05095197 A1	20051013	LSPB	+	published / reissued	
WO05095197 A1	20060905	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO05095197 A1	20060905	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO05095197 A1	20070411	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO

Title: DISCHARGE CHUTE FOR NON-FLOWABLE BULK MATERIALS

Abstract: In a preferred embodiment, a method of promoting discharge of essentially non-flowable material (21) through a bottom opening (30) of a container (20) within which the material is stored, including the steps of: slowly applying pressure to upwardly press at least a lower portion of mass of the material; and thereafter, releasing the pressure, whereby portions of the material fall through the bottom opening.

Classifications:

International (IPC 8-9): B63B27/22 B63B35/30 B65D88/64

F02B75/02 G01F11/00 (Advanced/Invention);

F02B75/02 (Advanced/Non-invention);

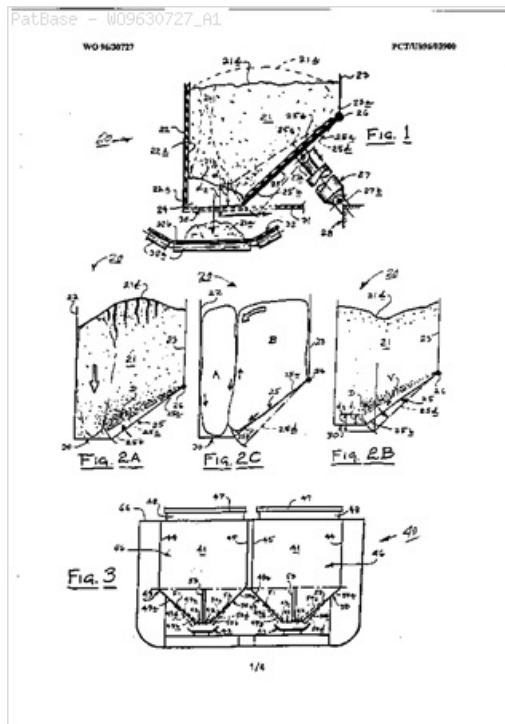
B63B27/00 B63B35/00 B65D88/00 (Core/Invention);

F02B75/02 (Core/Non-invention)

International (IPC 1-7): G01F11/00

CPC: B63B27/22 B63B35/306 B65D88/64 F02B2075/027

European: B63B27/22 B63B35/30F B65D88/64 R02B75/02S4



Family:

Publication number	Publication date	Application number	Application date
AU199654277 A1	19961016	AU19960054277	19960322
WO9630727 A1	19961003	WO1996US03900	19960322

Priority:

US19950415044 19950331 WO1996US03900 19960322

Probable Assignee: SKARHAR INC

Assignee(s): (std): SKARHAR INC

Inventor(s): (std): HARA JAMES H

Inventor(s): JAMES H HARA

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

Legal status (INPADOC)

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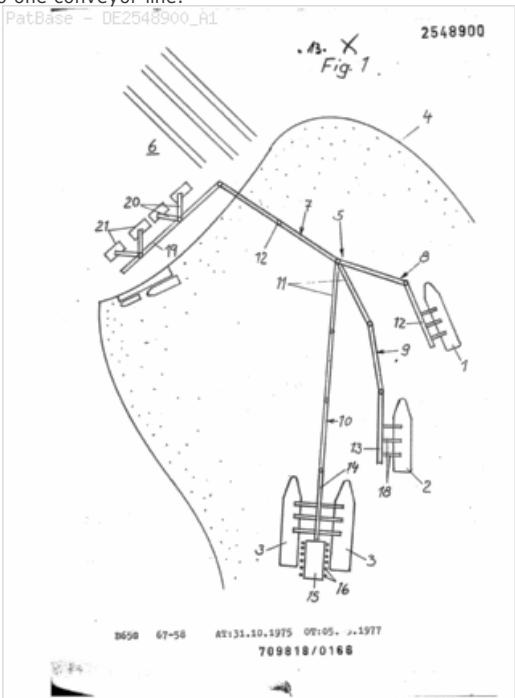
Patent	Date recorded	Event group	Code	Event	Details
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WO9630727 A1	19961003	LSPB	+	published / reissued	
WO9630727 A1	19971229	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO9630727 A1	19980131	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA

Title: BULK MATERIAL CONVEYOR FOR LOADING SHIPS - HAS FLOATING PONTOONS FOR CONVEYORS ANCHORED TO SEABED WITH BRANCH LINES AT SHIP END

Abstract: The floating conveyor belt sections are used to load and unload bulk material from ships which are anchored away from a pier. The conveyor belts are installed on floating pontoons, and the sections are joined by universal couplings which allow relative horizontal and vertical motion. At the end of each conveyor branch lines are leading to each cargo hold of the ship. To stabilise the floating conveyor belts, they are anchored to the sea bed and also to floating platforms. The platforms are provided in cases where two or more ships are linked to one conveyor line.

Classifications:

International (IPC 8-9): B63B27/22 B65G21/00 (Advanced/Invention);
B63B27/00 B65G21/00 (Core/Invention)
International (IPC 1-7): B65G67/58
CPC: B63B27/22 B65G21/005
European: B63B27/22 B65G21/00B



Title: Vessel of the OBO or bulk carrier type

Abstract: A vessel of the OBO or bulk carrier type for transportation of bulk cargo, comprising transverse bulkheads (1, 2), is provided with at least one longitudinal centreline bulkhead (100) intersecting the transverse bulkheads (1, 2), the transverse bulkheads and the longitudinal centreline bulkhead (100) forming longitudinal **cargo holds** (11), and the **cargo holds** (11) are provided with hatch openings (21) which essentially cover the tank top area (41) of the respective **cargo holds** (11), providing a substantially "open hatch", which hatch openings (21) are provided with single piece hatch covers (31).

Classifications:

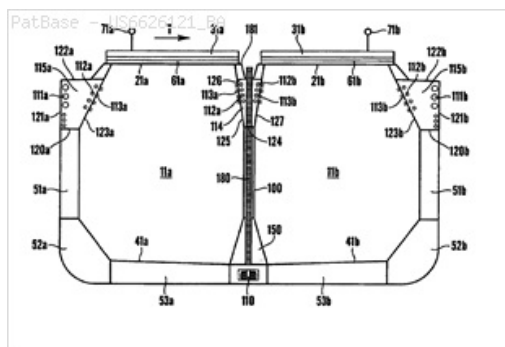
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B63B19/18 B63B19/26 B63B25/00 B63B25/02 B63B29/20 B63B3/20
B63B3/56 B63B3/60 (Advanced/Invention);
B63B3/60 (Advanced/Non-invention);
B63B11/00 B63B13/00 B63B19/00 B63B25/00 B63B29/00
B63B3/00 (Core/Invention);
B63B (Subclass/Invention)

International (IPC 1-7): B63B B63B11/02 B63B13/00 B63B19/14
B63B19/18 B63B19/26 B63B25/00 B63B25/02 B63B29/20 B63B3/56
B63B3/60

CPC: B63B3/20 B63B3/60 B63B11/02 B63B13/00 B63B19/14
B63B19/26 B63B25/02 B63B29/20 B63B2025/027

European: B63B11/02 B63B13/00 B63B19/14 B63B19/26
B63B25/02 B63B29/20 B63B3/20 B63B3/60 L63B25/02T2

US: 114/73



Family:

Publication number	Publication date	Application number	Application date
AU199940645 A1	19991108	AU19990040645	19990416
CN1113017 C	20030702	CN19998006249	19990416
CN1301228 A	20010627	CN19998006249	19990416
DE69906267 D1	20030430	DE19996006267	19990416
DE69906267 D1	20030430	DE19996006267T	19990416
DE69906267 T2	20040129	DE19996006267T	19990416
EP1071604 A1	20010131	EP19990924058	19990416
EP1071604 B1	20030326	EP19990924058	19990416
HR20000684 A2	20010831	HR20000000684	20001016
HR20000684 B1	20060228	HR20000000684	20001016
JP2002512150 T2	20020423	JP20000544553T	19990416
JP3883176 B2	20070221	JP20000544553T	19990416
KR100648442 B1	20061124	KR20007011473	19990416
KR20010042744 A	20010525	KR20007011473	19990416
NO981727 A	19991018	NO19980001727	19980416
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NO983204 A	19991018	NO19980003204	19980710
NO983204 L	19991018	NO19980003204	19980710
PL198682 B1	20080731	PL19990343510	19990416
PL343510 A1	20010827	PL19990343510	19990416
US6626121 BA	20030930	US20000673214	20001208
WO9954195 A1	19991028	WO1999N000125	19990416

Priority:

NO19980001727 19980416 NO19980003204 19980710 WO1999N000125 19990416
KR20007011473 20001016

Probable Assignee: ALLIED APPLIED MARINE TECHNOLOGIES INC

Assignee(s): (std): ALLIED APPLIED MARINE TECHNOLO ; ALLIED APPLIED MARINE TECHNOLOGIES INC ; LIBAEK OLE JACOB

Assignee(s): ALLIED APPLIED MARINE TECHNOLOGIES INC PANAMA

Inventor(s): (std): LIB K OLE JACOB ; OLE JACOB LIBAEK ; LIBAEK OLE JACOB ; LIBACK O J

Inventor(s): O J LIBACK

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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CN1113017 C	20030702	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1113017 C	20030702	LSGT	+C14	GRANT OF PATENT OR	

CN1113017 C	20030702	LSGT	+GR01	UTILITY MODEL 授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN1113017 C	20190510	LSLE	-CX01	EXPIRY OF PATENT TERM	
CN1113017 C	20190416	PEXP		Calculated Patent Term Expiry	
CN1301228 A	20010627	LSPB	+	published / reissued	
CN1301228 A	20010627	LSPB	+C06	PUBLICATION	
CN1301228 A	20010627	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
DE69906267 D1	20040422	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69906267 D1	20040422	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69906267 T2	20040129	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69906267 T2	20040422	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69906267 T2	20190416	PEXP		Calculated Patent Term Expiry	
EP1071604 A1	20010131	LSPB	+	published / reissued	
EP1071604 A1	20010131	LSSE	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20001019
EP1071604 B1	20030326	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1071604 B1	20030326	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1071604 B1	20040317	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20031230
EP1071604 B1	20110729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20110421 YEAR OF FEE PAYMENT : 13
EP1071604 B1	20110729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20110510 YEAR OF FEE PAYMENT : 13
EP1071604 B1	20110831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20110421 YEAR OF FEE PAYMENT : 13
EP1071604 B1	20110831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20110414 YEAR OF FEE PAYMENT : 13
EP1071604 B1	20121031	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *ALLIED APPLIED MARINE TECHNOLOGIES INC. EFFECTIVE DATE : 20120430
EP1071604 B1	20121226	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20120416
EP1071604 B1	20130118	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20121228
EP1071604 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				NATIONAL OFFICE TO EPO]	LAPSED DATE : 20120430
EP1071604 B1	20130131	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 : 20120416
EP1071604 B1	20130214	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69906267 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121101
EP1071604 B1	20130228	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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20120430
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EP1071604 B1	20140930	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 : 20121101
EP1071604 B1	20160331	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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20150501
EP1071604 B1	20190416	PEXP		Calculated Patent Term Expiry	
HR20000684 A2	20010831	LSPB	+	published / reissued	
HR20000684 B1	20060228	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2002512150 T2	20020423	LSPB	+	published / reissued	
JP2002512150 T2	20040218	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20040217
JP2002512150 T2	20060126	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20060125
JP2002512150 T2	20060411	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060410
JP2002512150 T2	20061006	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2002512150 T2	20061013	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20061012
JP2002512150 T2	20061116	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20061113
JP2002512150 T2	20061124	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP3883176 B2	20070221	LSGT	+	granted / extensions (spc, cpc, pte)	

JP3883176 B2	20061019	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3883176 B2	20061114	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3883176 B2	20091119	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3883176 B2	20091124	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3883176 B2	20101118	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3883176 B2	20101124	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP3883176 B2	20120223	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3883176 B2	20120228	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3883176 B2	20121115	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3883176 B2	20121120	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3883176 B2	20131114	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3883176 B2	20131119	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP3883176 B2	20141120	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3883176 B2	20141125	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP3883176 B2	20190416	PEXP		Calculated Patent Term Expiry	
KR100648442 B1	20061124	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100648442 B1	20040218	LSSES	A201	REQUEST FOR EXAMINATION	
KR100648442 B1	20050711	LSSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100648442 B1	20060331	LSSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100648442 B1	20060824	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100648442 B1	20061115	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100648442 B1	20121102	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20121102 YEAR OF FEE PAYMENT : 7
KR100648442 B1	20131107	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20131107 YEAR OF FEE PAYMENT : 8
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KR100648442 B1	20151116	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100648442 B1	20190416	PEXP		Calculated Patent Term Expiry	
KR20010042744 A	20010525	LSPB	+	published / reissued	
NO981727 A	19991018	LSPB	+	published / reissued	
NO981727 A	20010129	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
NO983204 A	19991018	LSPB	+	published / reissued	

NO983204 A	20010402	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
PL198682 B1	20080731	LSGT	+	granted / extensions (spc, cpc, pte)	
PL198682 B1	20140530	LSLE	-LAPS	DECISIONS ON THE LAPSE OF THE PROTECTION RIGHTS	EFFECTIVE DATE : 20130416
PL343510 A1	20010827	LSPB	+	published / reissued	
US6626121 BA	20030930	LSGT	+	granted / extensions (spc, cpc, pte)	
US6626121 BA	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALLIED APPLIED MARINE TECHNOLOGIES INC., PANAMA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LIBAEK, OLE-JACOB; REEL/FRAME:011348/0213 EFFECTIVE DATE : 20001012
US6626121 BA	20030911	LSGT	PAT1	Patented Case	
US6626121 BA	20030911	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6626121 BA	20070323	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6626121 BA	20110324	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6626121 BA	20150326	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6626121 BA	20201208	PEXP		Calculated Patent Term Expiry	
WO9954195 A1	19991028	LSPB	+	published / reissued	
WO9954195 A1	19990416	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 99806249.9 COUNTRY OF REF DOCUMENT : CN
WO9954195 A1	20001016	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020007011473 COUNTRY OF REF DOCUMENT : KR
WO9954195 A1	20001016	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : P20000684A COUNTRY OF REF DOCUMENT : HR
WO9954195 A1	20001019	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1999924058 COUNTRY OF REF DOCUMENT : EP
WO9954195 A1	20001208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 09673214 COUNTRY OF REF DOCUMENT : US
WO9954195 A1	20010131	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999924058 COUNTRY OF REF DOCUMENT : EP
WO9954195 A1	20010215	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9954195 A1	20010525	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020007011473 COUNTRY OF REF DOCUMENT : KR
WO9954195 A1	20030326	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999924058 COUNTRY OF REF DOCUMENT : EP
WO9954195 A1	20060824	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020007011473 COUNTRY OF REF DOCUMENT : KR

Title: DISPOSITIF SERVANT A RECEVOIR ET A TRANSFERER LES POISSONS PECHEES, APPLICABLE AUX BATEAUX DE PECHE COMPORTANT UNE RAMPE A HISSER A LA POUE DEVICE FOR RECEIVING AND TRANSFERRING FISHERIES FISH APPLICABLE TO FISHING VESSELS WITH A RAMP climb to STERN (Machine translation)

Abstract: Source: FR1265709A [FR] (Claim 1) 1 On prevoit a l'extremite superieure de la rampe a hisser pour le poisson amene: dans le bateau en passant sur cette derniere, une soute receptrice comportant des ouvertures menant a une cale de chargement qui est garnie de receptacles de transport et a partir de laquelle ceux-ci sont amenes a l'arriere par: des portes etanches dans une chambre situee au-dessous de la rampe a hisser, cette chambre pouvant etre ouverte pour les receptacles vers l'arriere et vers l'exterieur par un volet place a l'extremite inferieure de la rampe a hisser et constituant une partie de la surface de cette derniere.

Machine translation: (Claim 1) 1 It is expected at the upper end of the ramp to hoist the fish brought: in the boat, passing over the latter, a Receiver can hold with openings leading to a loading dock which is furnished with receptacles and transport from which they are brought to the rear by: watertight doors in a room located below the ramp hoist, that chamber can be opened for the receptacles to the rear and to the outside by a shutter up to the lower end of the ramp was hoisted and constituting a part of the surface of the latter.

Classifications:

International (IPC 8-9): B63B35/26 (Advanced/Invention);

B63B35/14 (Core/Invention)

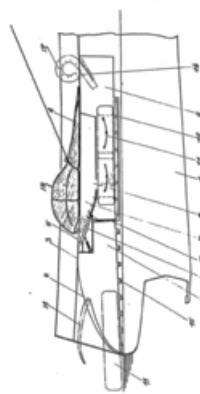
International (IPC 1-7): B63B35/24

CPC: B63B35/26

European: B63B35/26

PatBase - FR1265709_A

N. 1.385.389
Entreprise de :
VEB Volkswerft Stralsund
Pl. unique



Family:

Publication number	Publication date	Application number	Application date
FR1265709 A	19610630	FR19600836415	19600822

Priority:

FR19600836415 19600822

Probable Assignee:

VOLKSWERFT STRALSUND VEB

Assignee(s): (std):

VOLKSWERFT STRALSUND VEB

Assignee(s):

VEB VOLKSWERFT STRALSUND

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
FR1265709 A	19610630	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1265709 A	19800822	PEXP		Calculated Patent Term Expiry	

Title: Bulk material unloading system

Abstract: PCT No. PCT/NO91/00122 Sec. 371 Date May 18, 1993 Sec. 102(e) Date May 18, 1993 PCT Filed Sep. 25, 1991 PCT Pub. No. WO92/05997 PCT Pub. Date Apr. 16, 1992. An unloading system for transporting bulk material from a **cargo hold** includes parallel guides mounted to extend in a first, preferably width, direction across the top of the **cargo hold**. A horizontal cross bar extends across the top of the **cargo hold** in a second direction, preferably longitudinally, transverse to the first direction. The cross bar is mounted on the guides for movement therealong in the first direction. A scoop conveyor extends along the entire dimension of the **cargo hold** in the second direction and is suspended from the cross bar to be movable upwardly and downwardly relative thereto. The scoop conveyor is a single integrated conveyor member having a construction whereby it is capable of removing the bulk material in a single continuous operation from the **cargo hold** to a position adjacent the top of the **cargo hold**.

Classifications:

International (IPC 8-9): B63B25/04 B63B27/22

B65B1/00 (Advanced/Invention);

B63B25/00 B63B27/00 (Core/Invention)

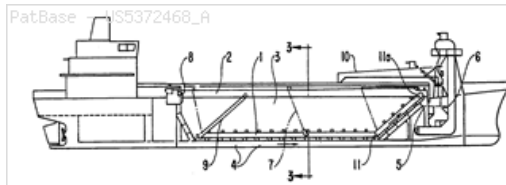
International (IPC 1-7): B63B B63B25/04 B63B27/00 B63B27/20

B63B27/22 B65G65/38

CPC: B63B27/22

European: B63B27/22

US: 414/140.9 414/142.2 414/142.5 414/313 414/327



Family:

Publication number	Publication date	Application number	Application date
BRPI9106946 A	19930727	BR1991PI06946	19910925
CA2093325 AA	19930402	CA19912093325	19910925
DE69105526 D1	19950112	DE19916005526	19910925
EP0566575 A1	19931027	EP19910919191	19910925
EP0566575 B1	19941130	EP19910919191	19910925
FI931481 A	19930527	FI19930001481	19930401
FI931481 A0	19930401	FI19930001481	19930401
JP6501902 T2	19940303	JP19910516551T	19910925
NO174615 B	19940228	NO19900004346	19901005
NO174615 C	19940608	NO19900004346	19901005
NO904346 A	19920406	NO19900004346	19901005
NO904346 A0	19901005	NO19900004346	19901005
NO904346 L	19920406	NO19900004346	19901005
RU93004855 A	19951020	RU19930004855	19930402
US5372468 A	19941213	US19930064065	19930518
WO9205997 A1	19920416	WO1991NO00122	19910925

Priority:

NO19900004346 19901005 WO1991NO00122 19910925

Probable Assignee: NORSK HYDRO AS

Assignee(s): (std): NORSK HYDRO AS ; NORSK HYDRO TECHNOLOGY

Assignee(s): NORSK HYDRO TECHNOLOGY B V ; NORSK HYDRO TECHNOLOGY B V SLUISKIL NL ; NORSK HYDRO TECHNOLOGY BV ; NORSK HYDRO BYGDOY ALLE AS ; IHLE KNUT ; NORSK HYDRO A S

Inventor(s): (std): IHLE KNUT

Inventor(s): IHLE KNUT N 0169 OSLO 1 NO ; KNUT IHLE

Agent(s): FETHERSTONHAUGH AND CO

Designated states: AT BE BR CA CH DE DK ES FI FR GB GR IT JP LU NL SE SU US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BRPI9106946 A	19930727	LSPB	+	published / reissued	
BRPI9106946 A	19960109	LSLE	-FD3	APPL. LAPSED DUE TO NON-PAYMENT OF RENEWAL FEE	
CA2093325 AA	19930402	LSPB	+	published / reissued	
CA2093325 AA	19960325	LSLE	-FZDE	DEAD	
DE69105526 D1	19950420	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : NORSK HYDRO A.S., OSLO, NO
DE69105526 D1	19950524	LSWD	-8332	NO LEGAL EFFECT FOR DE	
EP0566575 A1	19931027	LSPB	+	published / reissued	
EP0566575 A1	19931027	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19930429
EP0566575 A1	19940420	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19940308
EP0566575 B1	19941130	LSGT	+	granted / extensions (spc, cpc, pte)	

EP0566575 B1	19941130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR LAPSED DATE : 19941130
EP0566575 B1	19941130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19941130
EP0566575 B1	19941130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 19941130
EP0566575 B1	19941130	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 : 19941130
EP0566575 B1	19950228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE LAPSED DATE : 19950228
EP0566575 B1	19950301	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE LAPSED DATE : 19950301
EP0566575 B1	19950301	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTY TYPE : OWNER OWNER : NORSK HYDRO A.S.
EP0566575 B1	19950516	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
EP0566575 B1	19950925	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB LAPSED DATE : 19950925
EP0566575 B1	19951122	LSGT	+26N	NO OPPOSITION FILED	
EP0566575 B1	19960522	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19950925
EP0566575 B1	20110925	PEXP		Calculated Patent Term Expiry	
FI931481 A	19930527	LSPB	+	published / reissued	
FI931481 A	19960409	LSLE	-FD	APPLICATION LAPSED	
JP6501902 T2	19940303	LSPB	+	published / reissued	
NO174615 B	19940228	LSPB	+	published / reissued	
NO174615 C	19940608	LSGT	+	granted / extensions (spc, cpc, pte)	
NO174615 C	20101005	PEXP		Calculated Patent Term Expiry	
NO904346 A	19920406	LSPB	+	published / reissued	
RU93004855 A	19951020	LSPB	+	published / reissued	
US5372468 A	19941213	LSGT	+	granted / extensions (spc, cpc, pte)	
US5372468 A	19930518	LSAS	AS	ASSIGNMENT	PARTY TYPE : OWNER OWNER : NORSK HYDRO A.S. OLD PARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: IHLE, KNUT; REEL/FRA: 006626/0191 EFFECTIVE DATE : 19930416

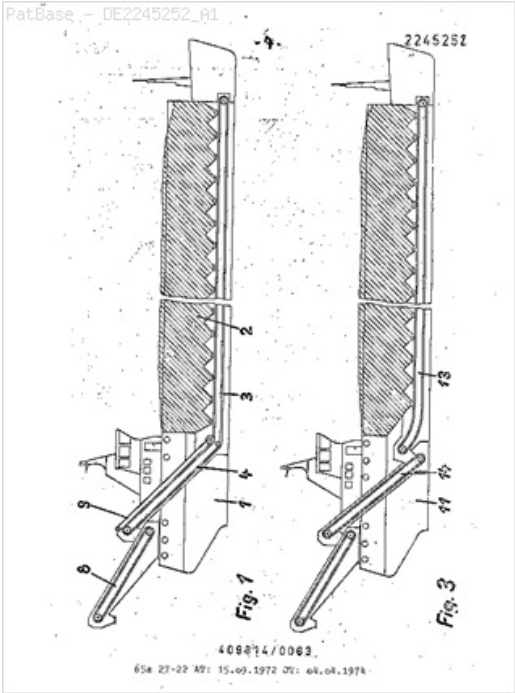
US5372468 A	19941201	LSGT	PAT1	Patented Case	
US5372468 A	19981213	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5372468 A	19990223	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19981213
US5372468 A	20180126	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5372468 A	20180126	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5372468 A	20130518	PEXP		Calculated Patent Term Expiry	
WO9205997 A1	19920416	LSPB	+	published / reissued	
WO9205997 A1	19930401	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 931481 COUNTRY OF REF DOCUMENT : FI
WO9205997 A1	19930402	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2093325 COUNTRY OF REF DOCUMENT : CA
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WO9205997 A1	19931027	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991919191 COUNTRY OF REF DOCUMENT : EP
WO9205997 A1	19941130	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991919191 COUNTRY OF REF DOCUMENT : EP

Title: SCHIFF, INSBESONDERE FUER DEN TRANSPORT VON SCHUETTGUT SHIP, ESPECIALLY FOR THE TRANSPORT OF BULK (Machine translation)

Abstract: Source: DE2245252A1 [DE] (Claim1) Mit einer Entladeeinrichtung versehenes Schiff, insbesondere fuer den Transport von Schuettgut, dadurch gekennzeichnet, dass die Entladeeinrichtung mindestens eine Foerdergurtanlage auf weist, die aus einem unterhalb des Laderaumes (2) angeordnete n, etwa waagrecht verlaufenden Gurtabschnitt (3) und aus einem schraeg ansteigenden Gurtabschnitt (4) besteht, wobei de Foerdergurte der Poerdergurtanlagen als Wellkantengurte (5) ausgebildet sind.

Machine translation: (Claim1) with a discharge device equipped ship, in particular for the transport of bulk material, wherein the discharge device comprises at least one conveyor belt on which a below the cargo space (2) be arrange th, approximately horizontally extending continuous strip (3) and from a diagonally rising belt section (4), wherein the conveyor belt are formed de Poerdergurtanlagen as corrugated sidewall belts (5).

Classifications:
International (IPC 8-9): B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)
International (IPC 1-7): B63B27/22
CPC: B63B27/22
European: B63B27/22



Family:

Publication number	Publication date	Application number	Application date
DE2245252 A1	19740404	DE19722245252	19720915
JP49068491 A2	19740703	JP19720115167	19721116

Priority:

DE19722245252 19720915

Probable Assignee: HARTMANN KARL
Assignee(s): (std): HARTMANN KARL
Assignee(s): HARTMANN KARL 4130 RHEINKAMPUTFORT
Inventor(s): (std): HARTMANN KARL
Inventor(s): HARTMANN KARL 4130 RHEINKAMPUTFORT

Legal status (INPADOC)

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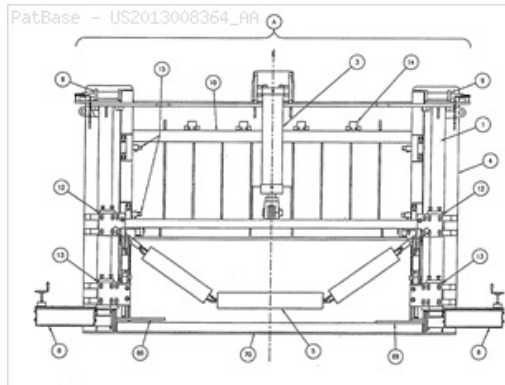
Patent	Date recorded	Event group	Code	Event	Details
DE2245252 A1	19740404	LSPB	+	published / reissued	
JP49068491 A2	19740703	LSPB	+	published / reissued	

Title: WATERTIGHT DOOR SYSTEM

Abstract: A watertight door system that provides for subdivision of **cargo holds**, and having a door frame assembly with a sliding door. Conveyor support stringers are movably connected to the sliding door and conveyor idlers are movably connected to and the conveyor support stringers. A linear actuator associated with the door frame assembly selectively actuates the door between an open and closed position, whereby actuation of the door by the hydraulic cylinder causes the conveyor support stringers to move with the door, and the conveyor idlers to be lowered without removal thereof. Belt side plugs are positioned on either side of the door frame assembly, and can move both inwardly against a **conveyor belt** edge and outwardly from the **conveyor belt** edge.

Classifications:

International (IPC 8-9): B63B11/00 B63B19/00 B63B27/22
B63B43/24 B63B43/28 B63B43/30 B65G21/20 B65G49/00
B65G67/60 E06B5/00 E06B7/16 (Advanced/Invention);
B63B27/22 B65G21/00 (Advanced/Non-invention)
CPC: B63B43/30 B63B27/22 B65G21/00
US: 114/120 114/202 198/860.4

**Family:**

Publication number	Publication date	Application number	Application date
CA2745544 AA	20130107	CA20112745544	20110707
CA2781485 AA	20130107	CA20122781485	20120627
CA2781485 C	20151013	CA20122781485	20120627
US2013008364 AA	20130110	US20120542267	20120705
US8985044 BB	20150324	US20120542267	20120705

Priority:

CA20112745544 20110707 CA20122781485 20120627

Probable Assignee: EMS TECH INC

Assignee(s): (std): ELDER JOHN ; EMS TECH INC ; LEIGH SCOTT ; MONK DAVID ; SMITH DOUG ; STORRING JOHN

Inventor(s): (std): ELDER JOHN ; MONK DAVID ; STORRING JOHN ; LEIGH SCOTT ; SMITH DOUG

Agent(s): SHAPIRO COHEN; AVENTUM IP LAW LLP; MILTONS IP PI; FLYNN THIEL BOUTELL AND TANIS PC

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2745544 AA	20130107	LSPB	+	published / reissued	
CA2745544 AA	20140330	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20140131
CA2781485 AA	20130107	LSPB	+	published / reissued	
CA2781485 AA	20150212	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150129
CA2781485 C	20151013	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2781485 C	20320627	PEXP		Calculated Patent Term Expiry	
US2013008364 AA	20130110	LSPB	+	published / reissued	
US2013008364 AA	20150304	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8985044 BB	20150324	LSGT	+	granted / extensions (spc, cpc, pte)	
US8985044 BB	20120710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EMS-TECH INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ELDER, JOHN; MONK, DAVID; STORRING, JOHN; AND OTHERS; SIGNING DATES FROM 20110815 TO 20110819;

US8985044 BB	20150304	LSGT	PAT1	Patented Case	
US8985044 BB	20180905	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8985044 BB	20321226	PEXP		Calculated Patent Term Expiry (PTA 174 days)	

Title: Transport and distribution of ship-borne goods units

Abstract: PCT No. PCT/FI95/00690 Sec. 371 Date Aug. 28, 1997 Sec. 102(e) Date Aug. 28, 1997 PCT Filed Dec. 20, 1995 PCT Pub. No. WO96/19378 PCT Pub. Date Jun. 27, 1996A distribution method is for transporting goods from a loading port for a ship or some other collection site, such as a storage room or centralized handling plant, to cabins or other operation sites on a ship. The steps include placing the goods on a transport pallet at the collection site; moving the transport pallet, including the goods, by an internal vertical conveyor belt on the ship to the cabins or operation sites. The method also includes performing the steps in the reverse order to transport the goods from the operation sites to the collection site.

Classifications:

International (IPC 8-9): B63B25/22 B63B27/16

B65G1/00 (Advanced/Invention);

B65G1/00 (Advanced/Non-invention);

B63B25/00 B63B27/00 B65G1/00 (Core/Invention)

International (IPC 1-7): B63B B63B25/22 B63B27/00 B63B27/16

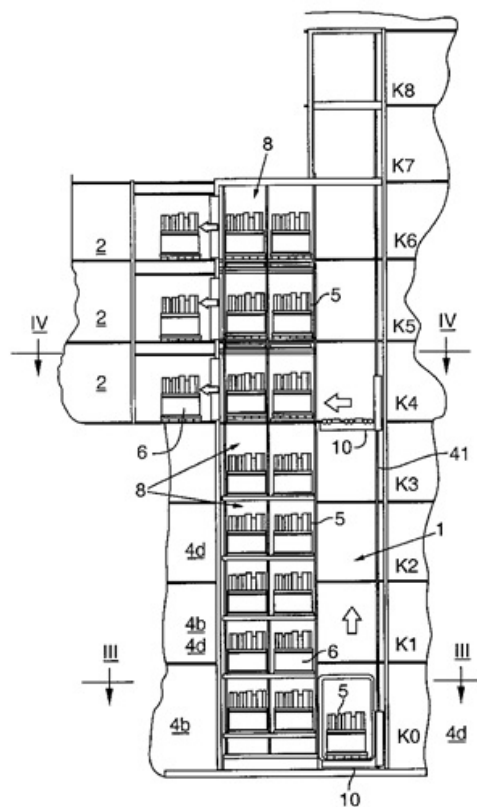
B63B29/00 B65G B65G1/00

CPC: B63B25/22 B63B27/16

European: B63B25/22 B63B27/16

US: 414/142.1 414/143.2 414/803

PatBase - US6059521_R



Family:

Publication number	Publication date	Application number	Application date
AU199642621 A1	19960710	AU19960042621	19951220
EP0799146 A1	19971008	EP19950941104	19951220
FI100320 B	19971114	FI19940005992	19941221
FI945992 A	19960622	FI19940005992	19941221
FI945992 A0	19941221	FI19940005992	19941221
JP10511057 T2	19981027	JP19960519544T	19951220
KR19987000210 A	19980330	KR19977004191	19951220
KR987000210 A	19980330	KR19970704191	19970620
NO972802 A	19970821	NO19970002802	19970617
NO972802 A0	19970617	NO19970002802	19970617
NO972802 L	19970821	NO19970002802	19970617
US6059521 A	20000509	US19970875002	19970828
WO9619378 A1	19960627	WO1995FI00690	19951220

Priority:

FI19940005992 19941221 WO1995FI00690 19951220

Probable Assignee: RAPELI PEKKA EINO

Assignee(s): (std): PEKKA E RAPELI ; RAPELI PEKKA ; RAPELI PEKKA E ; RAPELI PEKKA EINO

Inventor(s): (std): RAPELI PEKKA E ; RAPELI PEKKA

Inventor(s): PEKKA E RAPELI

Designated states: AT AU BE BR CA CH CN DE DK ES FI FR GB GR IE IT JP KP KR LI LU MC NL NO PL PT RO RU SE SG UA US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199642621 A1	19960710	LSPB	+	published / reissued	
EP0799146 A1	19971008	LSPB	+	published / reissued	
EP0799146 A1	19971008	LSES	+17P	REQUEST FOR	EFFECTIVE DATE : 19970717

				EXAMINATION FILED	
EP0799146 A1	19990714	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19990528
EP0799146 A1	20020424	LSRV	-18R	APPLICATION REFUSED	EFFECTIVE DATE : 20011028
FI100320 B	19971114	LSPB	+	published / reissued	
FI100320 B	20141221	PEXP		Calculated Patent Term Expiry	
FI945992 A	19960622	LSPB	+	published / reissued	
JP10511057 T2	19981027	LSPB	+	published / reissued	
KR19987000210 A	19980330	LSPB	+	published / reissued	
KR987000210 A	19980330	LSPB	+	published / reissued	
KR987000210 A	20010215	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
NO972802 A	19970821	LSPB	+	published / reissued	
NO972802 A	20020902	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
US6059521 A	20000509	LSGT	+	granted / extensions (spc, cpc, pte)	
US6059521 A	20000501	LSGT	PAT1	Patented Case	
US6059521 A	20040510	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6059521 A	20040706	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20040509
US6059521 A	20180123	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6059521 A	20180123	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6059521 A	20170828	PEXP		Calculated Patent Term Expiry	
WO9619378 A1	19960627	LSPB	+	published / reissued	
WO9619378 A1	19970620	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019970704191 COUNTRY OF REF DOCUMENT : KR
WO9619378 A1	19970717	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995941104 COUNTRY OF REF DOCUMENT : EP
WO9619378 A1	19970828	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08875002 COUNTRY OF REF DOCUMENT : US
WO9619378 A1	19971008	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995941104 COUNTRY OF REF DOCUMENT : EP
WO9619378 A1	19980330	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970704191 COUNTRY OF REF DOCUMENT : KR
WO9619378 A1	20010215	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970704191 COUNTRY OF REF DOCUMENT : KR
WO9619378 A1	20011028	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995941104 COUNTRY OF REF DOCUMENT : EP
WO9619378 A1	20020305	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995941104 COUNTRY OF REF DOCUMENT : EP

Abstract: ABSTRACT OF THE DISCLOSURE

Classifications:

B65G67/60 (Advanced/Invention);

B63B27/00 B65G65/00 (Core/Invention);

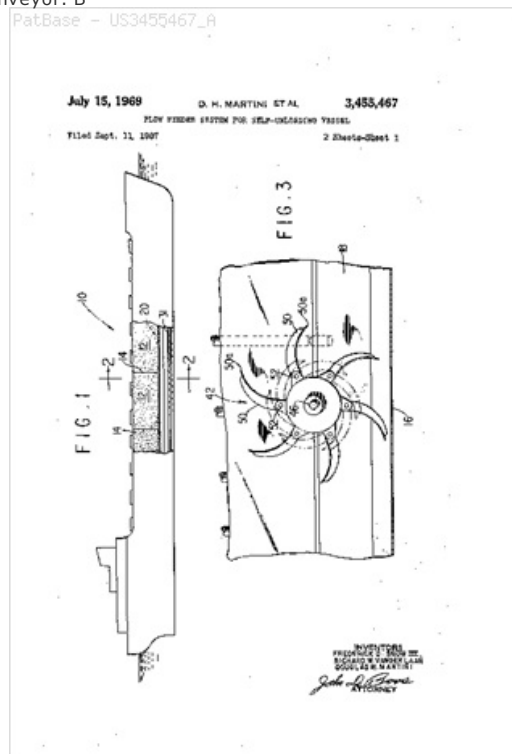
B63B (Subclass/Invention)

International (IPC 1-7): B63B27/20 B63B27/22 B65G65/30 B65G67/58

CPC: B63B27/22 B65G65/4854

European: B63B27/22 B65G65/48A2B

US: 414/142.4



Publication number	Publication date	Application number	Application date
AU196845332 A1	19700430	AU19680045332	19681024
AU206845332 A1	19700430	AU19680045332	19681024
DE1781221 A1	19701029	DE19681781221	19680910
FR1579853 A	19690829		19680911
GB1175937 A	19700101	GB19680042238	19680905
NL162872 B	19800215	NL19680012912	19680910
NL162872 C	19800715	NL19680012912	19680910
NL6812912 A	19690313	NL19680012912	19680910
NO132141 B	19750616	NO19680003560	19680910
NO132141 C	19750924	NO19680003560	19680910
NO751999 A	19690311	NO19750001999	19750605
NO751999 L	19690311	NO19750001999	19750605
US3455467 A	19690715	US19670666736	19670911

US19670666736 19670911 NO19680003560 19680910

Assignee(s): (std): HEWITT ROBINS INC ; HEWITT ROBINS INT S A ; HEWITT ROBINS INT SA ; HEWITT ROBINS INTERNAT S A

Assignee(s): HEWITT ROBINS INTERNATIONAL S A ; HEWITT ROBINS INTERNATIONAL S A BRUSSEL ; HEWITT ROBINS INTERNATIONAL SA ; HEWITT ROBINS INTERNATIONALS A

Inventor(s): (std): DER LAAN R W VAN ; H MARTINI DOUGLAS ; MARTINI D H ; O SNOW III FREDERICK ; SNOW III F O ;
VAN DER LAAN R W ; VANDER LAAN R W ; W VANDERLAAN RICHARD ; VANDER RICHARD W ; SNOW
FREDERICK O ; MARTINI DOUGLAS H

Inventor(s): LAAN R W VAN D ; RICHARD W VANDER ; LAAN R W VAN DER ; DOUGLAS H MARTINI ; DOUGLAS H MARTINI
FREDERICK O SNOW HI RICHARD W VANDERLAAN ; FREDERICK O SNOW

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Patent	Date recorded	Event group	Code	Event	Details
AU196845332 A1	19700430	LSPB	+	published / reissued	
AU206845332 A1	19700430	LSPB	+	published / reissued	
DE1781221 A1	19701029	LSPB	+	published / reissued	

DE1781221 A1	19831020	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE
FR1579853 A	19690829	LSGT	+	granted / extensions (spc, cpc, pte)
FR1579853 A	19880911	PEXP		Calculated Patent Term Expiry
GB1175937 A	19700101	LSGT	+	granted / extensions (spc, cpc, pte)
GB1175937 A	19700513	LSGT	+PS	PATENT SEALED
GB1175937 A	19830407	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
GB1175937 A	19880905	PEXP		Calculated Patent Term Expiry
NL162872 B	19800215	LSPB	+	published / reissued
NL162872 B	19880910	PEXP		Calculated Patent Term Expiry
NL162872 C	19800715	LSGT	+	granted / extensions (spc, cpc, pte)
NL162872 C	19830516	LSLE	-V1	LAPSED BECAUSE OF NON-PAYMENT OF THE ANNUAL FEE
NL162872 C	19880910	PEXP		Calculated Patent Term Expiry
NL6812912 A	19690313	LSPB	+	published / reissued
NO132141 B	19750616	LSPB	+	published / reissued
NO132141 C	19750924	LSGT	+	granted / extensions (spc, cpc, pte)
NO132141 C	19880910	PEXP		Calculated Patent Term Expiry
NO751999 A	19690311	LSPB	+	published / reissued
US3455467 A	19690715	LSGT	+	granted / extensions (spc, cpc, pte)

Title: ADJUSTABLE FLOW HOPPER GATE

Abstract: ABSTRACT OF THE DISCLOSURE

The present invention relates to storage hopper and gate designs which permit the continuous discharge of bulk materials at extremely low flow rates. The storage hopper is formed with an auxiliary chamber having a bottom opening which is regulated by a slidably mounted gate. The auxiliary chamber is positioned so as to receive only a small amount of material and the gate system can thereby establish extremely low discharge rates. This hopper and gate design permits a series of these gates to be connected together so as to be actuated in unison and is particularly useful in self-unloading vessels handling bulk materials. B

Classifications:

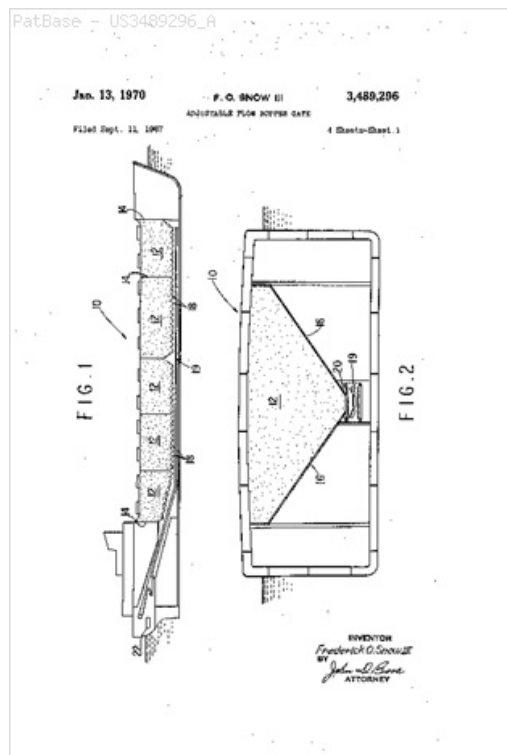
International (IPC 8-9): B63B25/02 B63B27/22 B65D88/28 B65G1/10 B65G65/58 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B25/02 B63B27/04 B63B27/22 B63B35/02 B65G65/42 B65G65/60 B65G67/58 G01F11/06 G01F11/30

CPC: B63B27/22

European: B63B27/22

US: 222/270 222/328 222/486 414/142.3



Family:

Publication number	Publication date	Application number	Application date
AU196840775 A1	19700122	AU19680040775	19680718
AU206840775 A1	19700122	AU19680040775	19680718
DE1781222 A1	19701029	DE19681781222	19680910
DE1781222 B2	19780309	DE19681781222	19680910
DE1781222 C3	19781109	DE19681781222	19680910
FR1573709 A	19690704		19680723
GB1240165 A	19710721	GB19680038498	19680812
NL6811220 A	19690313	NL19680011220	19680807
NO132143 B	19750616	NO19680003559	19680910
NO132143 C	19750924	NO19680003559	19680910
SE348424 B	19720904	SE19680011048	19680816
US3489296 A	19700113	US19670666671	19670911

Priority:

US19670666671 19670911

Probable Assignee: HEWITT ROBINS INC

Assignee(s): (std): HEWITT ROBINS INC ; HEWITT ROBINS INT S A ; HEWITT ROBINS INT SA ; HEWITT ROBINS INTERNAT S A

Assignee(s): HEWITT ROBINS INTERNATIONAL S A ; HEWITT ROBINS INTERNATIONAL S A BRUESSEL ; HEWITT ROBINS INTERNATIONAL SA

Inventor(s): (std): O SNOW III FREDERICK ; SNOW FREDERICK O ; SNOW III F O ; SNOW III FREDERICK O ; SNOW S

Inventor(s): FREDERICK O SNOW ; FREDERICK O SNOW HI ; SNOW III FREDERICK O WAYNE N J V ST A

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU196840775 A1	19700122	LSPB	+	published / reissued	
AU206840775 A1	19700122	LSPB	+	published / reissued	
DE1781222 A1	19701029	LSPB	+	published / reissued	
DE1781222 B2	19780309	LSPB	+	published / reissued	
DE1781222 C3	19781109	LSGT	+	granted / extensions (spc, cpc, pte)	

DE1781222 C3	19781109	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)
DE1781222 C3	19790809	LSLE	-EHJ	CEASED/NON-PAYMENT OF THE ANNUAL FEE
FR1573709 A	19690704	LSGT	+	granted / extensions (spc, cpc, pte)
FR1573709 A	19880723	PEXP		Calculated Patent Term Expiry
GB1240165 A	19710721	LSGT	+	granted / extensions (spc, cpc, pte)
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GB1240165 A	19800319	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
GB1240165 A	19880812	PEXP		Calculated Patent Term Expiry
NL6811220 A	19690313	LSPB	+	published / reissued
NO132143 B	19750616	LSPB	+	published / reissued
NO132143 C	19750924	LSGT	+	granted / extensions (spc, cpc, pte)
NO132143 C	19880910	PEXP		Calculated Patent Term Expiry
SE348424 B	19720904	LSPB	+	published / reissued
US3489296 A	19700113	LSGT	+	granted / extensions (spc, cpc, pte)

Title: APPARATUS FOR THE LOADING AND UNLOADING OF SHIPS

Abstract: 952,840. Overhead cranes on ships. ALGONQUIN SHIPPING and TRADING Ltd., and CLARKE, CHAPMAN and CO. Ltd. May 21, 1960, No. 18003/60. Headings B8B and B8E. The hoisting crab 7, Fig. 1, of an overhead crane which runs on longitudinal rails 53 on the deck of a ship, moves along a bridge 5 which can be raised and lowered between operative and inoperative positions and is supported on a carriage 4 by two pairs of vertical columns 1 which are movable between a vertical erect position in which they can be locked and a lowered position. The columns 1 may be turned about pins 2 by an hydraulic ram 3 and locked in position by further pins and a strut 37, or the columns may be telescopic. The bridge 5 carries a telescopic portion 6 having tracks on which the crab 7 runs by means of wheels 16. The crab carries electric motors for operating a grab 56 or a hook 77 and further motors for traversing by means of a rack and pinion. Electric motors 28 operate a rack and pinion for moving the bridge 6 on wheels 32 relatively to the bridge 5. The bridges 5, 6 are raised by winches 8, Fig. 3, and cables 9 and held in the raised position by pins 35 which are hydraulically moved into holes in a cross-member 79 attached to columns 1. The main carriage 4 is driven by electric motors 42 and has two pairs of inverted rollers 49 which engage below rails 51 and are spring loaded to ensure that the carriage travels freely over irregularities in the track. The grab 56, Fig. 1, may dump cargo into a hopper 55 which discharges on to a belt conveyer 58. Two such hoppers and belts may be provided one on either side of the hatch. If the ship has two hatches disposed transversely the hopper and conveyer belt may be centrally disposed between them. In a modification, Fig. 8, a boom 100 carrying an endless belt conveyer may be supported and luffed about an axis 99 on either side of the carriage 4 by a rope 112 and a winch 113. A hopper 94 having a feeder-belt 95 discharges bulk cargo on to the belt on the boom 100. The boom 100 may be attached to the crab 7 by slings 122, and either the rope 112 or the crabs hoisting rope so that after suitable disconnection the boom may be moved and stowed.

Classifications:

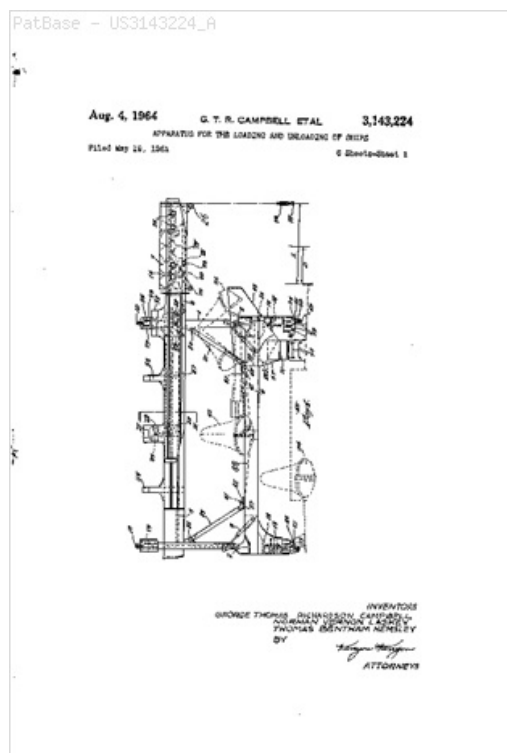
International (IPC 8-9): B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B B63B27/12 B63B27/22 B66F

CPC: B63B27/22

European: B63B27/22

US: 212/299 212/307 212/324 414/141.4



Family:

Publication number	Publication date	Application number	Application date
BE604055 A	19610918	BE19610604055	19610519
FR1289353 A	19620330	FR19610862350	19610519
GB952840 A	19640318	GB19600018003	19600521
US3143224 A	19640804	US19610110365	19610516

Priority:

GB19600018003 19600521 FR19610862350 19610519

Probable Assignee: INT MACGREGOR ORG

Assignee(s): (std): INTERNAT MAC GREGOR ORGANIZATI ; INTERNAT MACGREGOR ORGANIZATIO ; INT MACGREGOR ORG ; ALGONQUIN SHIPPING AND TRADING ; CLARKE CHAPMAN LTD ; INT MACGREGOR ORGANIZATIO

Assignee(s): INTERNATIONAL MAC GREGOR ORGANIZATION ; INT MAC GREGOR ORGANIZATI ; ALGONQUIN SHIPPING AND TRADING LIMITED ; CLARKE CHAPMAN AND CO LIMITED ; INT MAC GREGOR ORGANIZATION I M G O ; INTERNATIONAL MAC GREGOR ORGANIZATION I M G O ; INT MAC GREGOR ORGANIZATION ; INT MACGREGOR ORGANIZATION ; INT MAC GREGOR ORGANIZATION IMGO ; INTERNATIONAL MACGREGOR ORGANIZATION

Inventor(s): (std): BENTHAM HEMSLEY THOMAS ; CAMPBELL GEORGE THOMAS RICHARD ; LASKEY NORMAN VERNON ; HEMSLEY THOMAS BENTHAM ; RICHARDSON CAMPBELL GEORGE THO ; VERNON LASKEY NORMAN

Inventor(s): NORMAN VERNON LASKEY ; GEORGE THOMAS RICHARDSON CAMPBELL ; CAMPBELL GEORGE THOMAS RICHARDSON

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BE604055 A	19610918	LSPB	+	published / reissued	

FR1289353 A	19620330	LSGT	+	granted / extensions (spc, cpc, pte)
FR1289353 A	19810519	PEXP		Calculated Patent Term Expiry
GB952840 A	19640318	LSGT	+	granted / extensions (spc, cpc, pte)
GB952840 A	19800521	PEXP		Calculated Patent Term Expiry
US3143224 A	19640804	LSGT	+	granted / extensions (spc, cpc, pte)

Title: APPARATUS AND PROCEDURE FOR THE LOADING OF PARCELLED GOODS.

Abstract: The invention relates to an apparatus and a corresponding procedure for the loading of parcelled goods. The apparatus comprises a vertical conveyor (1) for conveying the goods (2) in a downward direction and, mounted at the lower end of the vertical conveyor, a horizontal conveyor (3) for conveying the goods in an essentially horizontal direction. According to the invention, the end of the horizontal conveyor (3) pointing away from the vertical conveyor (1) is provided with a horizontally rotatable stowing device (4) and appropriate control equipment for maintaining a constant orientation of the stowing device relative to the space (5) to be loaded.

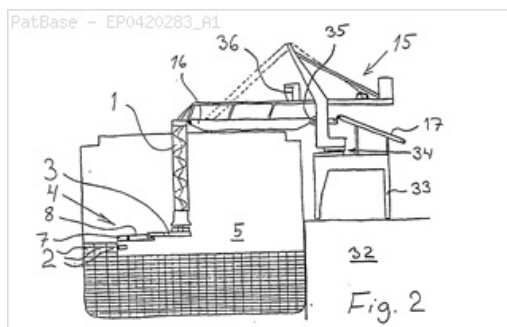
Classifications:

International (IPC 8-9): B65G67/60 (Advanced/Invention);
B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G67/60

CPC: B65G67/603

European: B65G67/60A



Family:

Publication number	Publication date	Application number	Application date
DE0420283 T1	19910926	DE19900118737T	19900928
DE69018183 D1	19950504	DE19906018183	19900928
DE69018183 T2	19950831	DE19906018183T	19900928
EP0420283 A1	19910403	EP19900118737	19900928
EP0420283 B1	19950329	EP19900118737	19900928
FI894594 A	19910329	FI19890004594	19890928
FI894594 A0	19890928	FI19890004594	19890928
FI93629 B	19950131	FI19890004594	19890928
FI93629 C	19950510	FI19890004594	19890928

Priority:

FI19890004594 19890928

Probable Assignee: KCI KONE CRANES INT OY

Assignee(s): (std): KCI KONE CRANES INT ; KCI KONE CRANES INT OY ; KONE OY

Assignee(s): KONE OY HELSINKI FI ; KCI KONE CRANES INTERNATIONAL OY ; KCI KONE CRANES INTERNATIONAL OY HYVINKAAEAE FI

Inventor(s): (std): TASANEN LAURI ; NIEMI JARMO

Inventor(s): NIEMI JARMO SF 05880 HYVINKAAEAE FI ; NIEMI JARMO SF 05880 HYVINKAAEAE SE ; TASANEN LAURI SF 05800 HYVINKAAEAE SE ; TASANEN LAURI SF 05800 HYVINKAAEAE FI

Designated states: BE DE GB NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE0420283 T1	19910926	LSPB	+	published / reissued	
DE69018183 D1	19960425	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69018183 T2	19950831	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69018183 T2	20100928	PEXP		Calculated Patent Term Expiry	
EP0420283 A1	19910403	LSPB	+	published / reissued	
EP0420283 A1	19910403	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19901228
EP0420283 A1	19930804	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19930622
EP0420283 A1	19941109	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : KCI-KONE CRANES INTERNATIONAL OY
EP0420283 B1	19950329	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0420283 B1	19960320	LSGT	+26N	NO OPPOSITION FILED	
EP0420283 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20090930

					YEAR OF FEE PAYMENT : 20
EP0420283 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20090925 YEAR OF FEE PAYMENT : 20
EP0420283 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20090928 YEAR OF FEE PAYMENT : 20
EP0420283 B1	20100226	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20090924 YEAR OF FEE PAYMENT : 20
EP0420283 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20091001 YEAR OF FEE PAYMENT : 20
EP0420283 B1	20100930	LSLE	-BE20	BE: PATENT EXPIRED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *KCI-KONE CRANES INTERNATIONAL OY EFFECTIVE DATE : 20100928
EP0420283 B1	20101006	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20100928
EP0420283 B1	20101020	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20100927
EP0420283 B1	20101102	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP0420283 B1	20101231	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 EXPIRATION OF PROTECTION LAPSED DATE : 20100927
EP0420283 B1	20110131	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 EXPIRATION OF PROTECTION LAPSED DATE : 20100928
EP0420283 B1	20130628	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 EXPIRATION OF PROTECTION LAPSED DATE : 20100928
EP0420283 B1	20100927	PEXP		Calculated Patent Term Expiry	
EP0420283 B1	20100928	PEXP		Calculated Patent Term Expiry	
FI894594 A	19910329	LSPB	+	published / reissued	
FI894594 A	19950102	LSPB	BB	PUBLICATION OF EXAMINED APPLICATION	
FI894594 A0	19890928	LSGT	+FG	PATENT GRANTED	PARTYTYPE : OWNER OWNER : KCI KONECRANES INTERNATIONAL OY

FI93629 B	19950131	LSPB	+	published / reissued	
FI93629 C	19950510	LSGT	+	granted / extensions (spc, cpc, pte)	
FI93629 C	19951020	LSAS	PC	TRANSFER OF ASSIGNMENT OF PATENT	PARTYTYPE : OWNER OWNER : KCI KONECRANES INTERNATIONAL OY
FI93629 C	20040831	LSGT	+FG	PATENT GRANTED	PARTYTYPE : OWNER OWNER : KCI KONE CRANES INTERNATIONAL OY
FI93629 C	20090928	PEXP		Calculated Patent Term Expiry	

Title: SURF BOARD CARRYING AND PROTECTING BAG, ASSEMBLED OF CENTRAL PART AND TWO OUTER POCKETS WITH INFLATABLE AREAS

Abstract: A rectangular sheet (10) made of a thin water repellent material (201) with carrying handles (30) attached to two of its edges is wrapped around the center of the surfboard. Two triangular pockets (20), each provided with an inflatable outer border (203) and a number of inflatable ribs (203) are pulled over the outer ends of the surfboard and joined to the central part (10) with matching strips of Velcro (RTM). There can also be inflatable ribs (203) integrated in the central part (10) in order to protect the board when stored between other items.

Classifications:

International (IPC 8-9): A45C3/10 A45F3/15 (Advanced/Invention);

B63B35/79 (Advanced/Non-invention);

A45C3/00 A45F3/00 (Core/Invention);

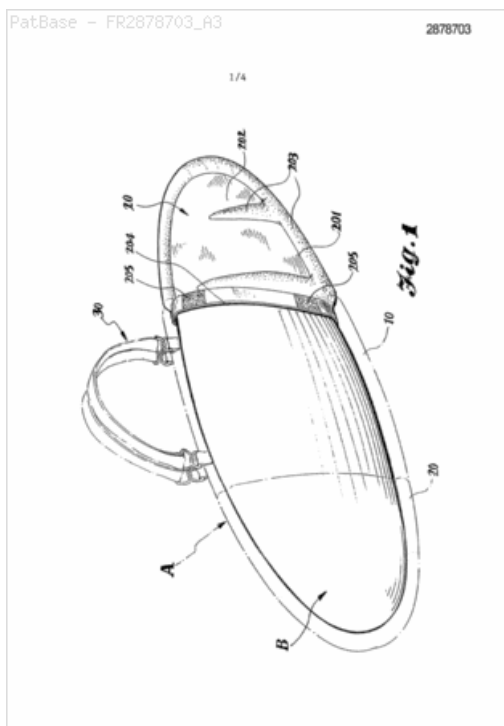
B63B35/73 (Core/Non-invention)

CPC: A45C2003/007 A45F3/00 B63B35/7946

European: B63B35/79S K45C3/00S K45F3/00

PatBase - FR2878703_A3

2878703



Family:

Publication number	Publication date	Application number	Application date
FR2878703 A3	20060609	FR20040013013	20041207

Priority:

FR20040013013 20041207

Probable Assignee:

LU CHENG LUN

Assignee(s): (std):

LU CHENG LUN

Inventor(s): (std):

LU CHENG LUN

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
FR2878703 A3	20060609	LSPB	+	published / reissued	
FR2878703 A3	20061117	LSLE	-ST	NOTIFICATION OF LAPSE	EFFECTIVE DATE : 20060831

Title: FRACHTER ZUM TRANSPORT VON SCHUETTIGUT Cargo for transportation of bulk (Machine translation)

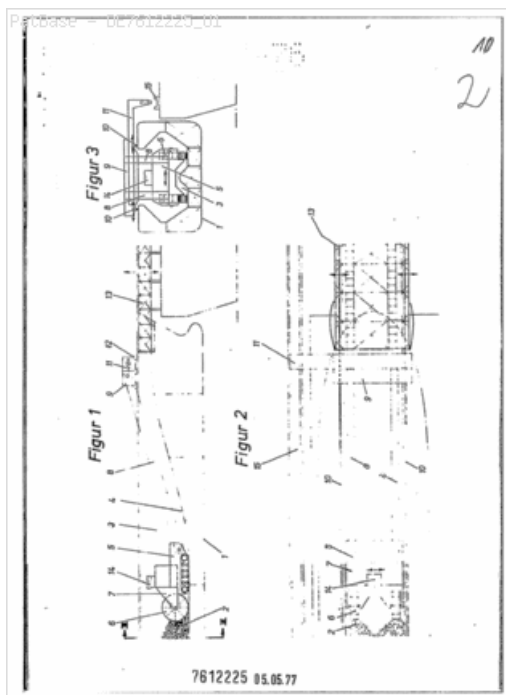
Abstract: Source: DE7612225U1 [DE] (Claim 1) 1. Schutzanspruch Schiff mit einer Vorrichtung zum Transport von Schuettgu@, dadurch gekennzeichnet, dass das Schiff als Zwei-Huellen-Schiff (1) mit durchgehenden Laderaum (3) ausgebildet ist-, dass der 0 c: greater than Boden des Ladesraumes (3) einen "W"-foermigen Querschnitt aufweist, dass die unteren Enden des "W" einen horizontalen Bereich haben, dessen Breite mindestens gleich der des Schaufelrades (6) eines zum Entladen des Schuettgutes vorgesehenen Schaufelradgeraetes (5) ist, vorzugsweise ein vielfaches davon betraegt, und dass auf dem Oberdeck beidseitig des Laderaumes (3) Schienen (10) fuer den Wagen (9) eines Schaufelradgeraetes (5) befestigt sind.

Machine translation: (Claim 1) 1 Right to protection vessel with a device for transporting bulk materials @, characterized in that the ship is, as a two-hulled boat (1) formed with continuous loading space (3) that the 0 c: greater than the floor of the cargo space (3) a "W"-shaped cross-section, that the lower ends of the "W" have a horizontal area, the width at least equal to the impeller (6) one for discharging the bulk material provided Bucket wheel reclaimers (5) is preferably a multiple of it, and that are on the upper deck on both sides of the cargo space (3) Rails (10) for the car (9) of a Bucket wheel reclaimers (5) attached.

Classifications:

International (IPC 8-9): B63B11/00 B63B27/22 (Advanced/Invention); B63B11/00 B63B27/00 (Core/Invention)

International (IPC 1-7): B63B11/00 B63B27/22



Family:

Publication number	Publication date	Application number	Application date
DE7612225 U1	19770505	DE19760012225U	19760417

Priority:

DE19760012225U 19760417

Probable Assignee:

THYSSEN INDUSTRIE

Assignee(s): (std):

THYSSEN INDUSTRIE

Assignee(s):

THYSSEN INDUSTRIE AG 4300 ESSEN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE7612225 U1	19770505	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Water-tight flow controller for a ship

Abstract: A flow controller for the hopper of a self-unloading ship controls the flow of particulate material from the hopper. The controller is a throat having an opening and a movable gate to open and close the opening. The gate has a sloped central surface that blocks the opening. When the gate is open, particulate material in the hopper flows out of the hopper through the opening and onto the central surface. From the central surface the particulate materials flow onto the conveyor system of the self-unloading ship. The throat has a seal surrounding the opening with a corresponding bead surrounding the central surface on the gate. When the gate and throat are in a closed position, the gate is water-tight. When the gate is open, the seal is located away from the flow of material.

Classifications:

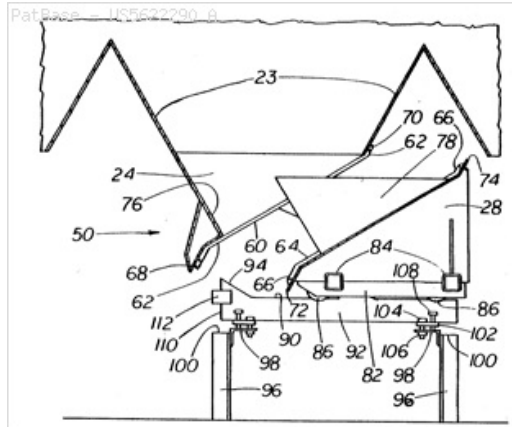
International (IPC 8-9): B63B27/00 B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/00 B65D47/00

CPC: B63B27/22

European: B63B27/22

US: 105/282.2 222/502 222/504 222/559



Family:

Publication number	Publication date	Application number	Application date
CA2147189 AA	19951020	CA19952147189	19950418
GB9407741 A0	19940615	GB19940007741	19940419
US5622290 A	19970422	US19950421786	19950414

Priority:

GB19940007741 19940419 CA19952147189 19950418

Probable Assignee: ULS CORP

Assignee(s): (std): POLE CHARLES D ; ULS CORP

Assignee(s): POLE CHARLES DOUGLAS

Inventor(s): (std): POLE CHARLES DOUGLAS ; POLE CHARLES D

Agent(s): SCHNURR DARYL W

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2147189 AA	19951020	LSPB	+	published / reissued	
CA2147189 AA	19990720	LSSES	+EEER	EXAMINATION REQUEST	
CA2147189 AA	20020418	LSLE	-FZDE	DEAD	
US5622290 A	19970422	LSGT	+	granted / extensions (spc, cpc, pte)	
US5622290 A	19950414	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ULS CORPORATION, CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLE, CHARLES DOUGLAS; REEL/FRAME:007460/0665 EFFECTIVE DATE : 19950412
US5622290 A	19970411	LSGT	PAT1	Patented Case	
US5622290 A	20010422	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5622290 A	20010626	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20010422
US5622290 A	20180125	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5622290 A	20180125	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

US5622290 A	20150414	PEXP	Calculated Patent Term Expiry
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Title: **Conveyor belt** for self unloading ships.

Abstract: 1. Belt conveyor plant for self-discharging ships, comprising at least two longitudinal conveyors (4) in the region of the ship's bottom each of which has allocated to it a clearing "plough" (14), and with a longitudinal C conveyor (7) provided at one end of the ship, and a transfer system between the extremities of the longitudinal conveyors and the loading point (20) of the longitudinal C conveyor, characterised in that the transfer system comprises a transverse C conveyor (6) which has a horizontal conveying section (19) in the area of the extremities (18) of the longitudinal conveyors (4).

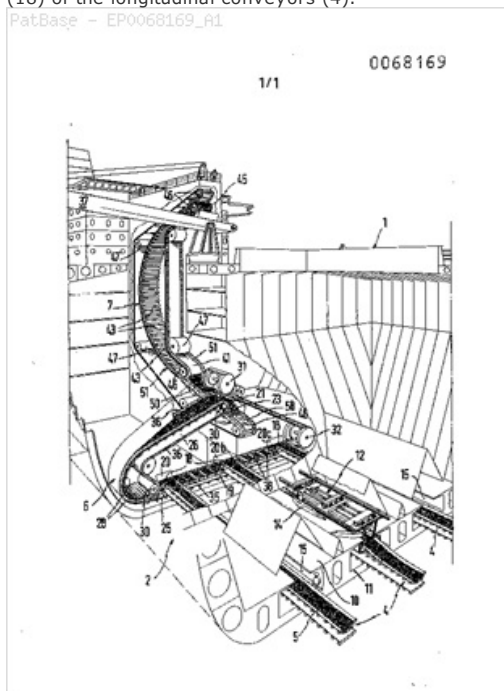
Classifications:

International (IPC 8-9): B63B27/22 B65G15/16 B65G15/22
B65G15/40 B65G67/60 (Advanced/Invention);
B63B27/00 B65G15/00 B65G15/10 B65G15/32
B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G15/16 B65G15/22
B65G15/24 B65G15/40 B65G65/42 B65G67/60

CPC: B63B27/22 B65G15/16 B65G2201/04

European: B63B27/22 B65G15/16 L65G201/04



Family:

Publication number	Publication date	Application number	Application date
AT10468 E	19841215	AT19820104864T	19820603
AU198284356 A1	19821216	AU19820084356	19820601
DE3219328 A1	19821223	DE19823219328	19820522
DE3261362 D1	19850110	DE19823261362	19820603
EP0068169 A1	19830105	EP19820104864	19820603
EP0068169 B1	19841128	EP19820104864	19820603
JP58002140 A2	19830107	JP19820097912	19820609

Priority:

DE19813122818 19810609 DE19823219328 19820522 EP19820104864 19820603
DE19823261362 19820603

Probable Assignee: SCHOLTZ AG CONRAD

Assignee(s): (std): SCHOLTZ AG CONRAD ; SCHOLTZ CONRAD AG

Assignee(s): CONRAD SCHOLTZ AG ; KONRAATO SHIYORUTSU AG

Inventor(s): (std): PAELKE JUERGEN ; PAELKE JURGEN ; YURUGEN PERUKE

Agent(s): GRIFFITH HACK

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT10468 E	19841215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT10468 E	19860915	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT10468 E	20020603	PEXP		Calculated Patent Term Expiry	
AU198284356 A1	19821216	LSPB	+	published / reissued	
DE3219328 A1	19821223	LSPB	+	published / reissued	
DE3219328 A1	19850515	LSWD	-8130	WITHDRAWAL	
DE3261362 D1	19860612	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
EP0068169 A1	19830105	LSPB	+	published / reissued	
EP0068169 A1	19830413	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19830126

EP0068169 B1	19841128	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0068169 B1	19850603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT LAPSED DATE : 19850603
EP0068169 B1	19850604	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE LAPSED DATE : 19850604
EP0068169 B1	19850630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE LAPSED DATE : 19850630
EP0068169 B1	19850630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH LAPSED DATE : 19850630
EP0068169 B1	19850630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI LAPSED DATE : 19850630
EP0068169 B1	19851127	LSGT	+26N	NO OPPOSITION FILED	
EP0068169 B1	19851231	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : CONRAD SCHOLTZ A.G. EFFECTIVE DATE : 19850603
EP0068169 B1	19860101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19860101
EP0068169 B1	19860228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19860228
EP0068169 B1	19860228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0068169 B1	19860301	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE LAPSED DATE : 19860301
EP0068169 B1	19860317	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP
EP0068169 B1	19860425	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0068169 B1	19870318	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP
EP0068169 B1	19881121	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB LAPSED DATE : 19881121
EP0068169 B1	19950131	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP TEXT : 82104864.2 EFFECTIVE DATE : 19860728
JP58002140 A2	19830107	LSPB	+	published / reissued	

Title: WATER RUBBISH CLEAN -UP VESSEL

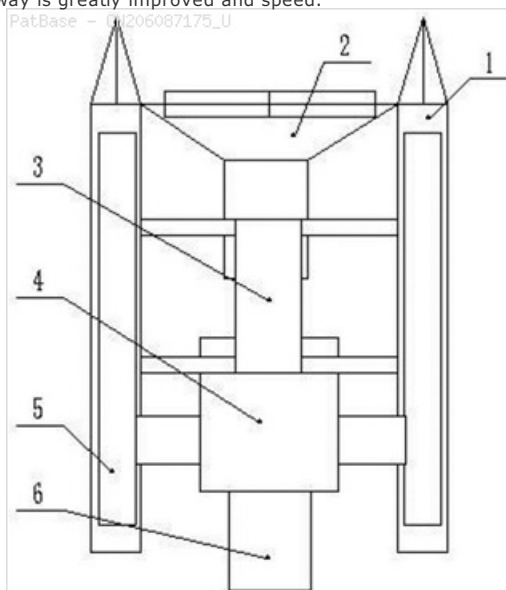
Abstract: The utility model discloses a water rubbish clean -up vessel, which belongs to the technical field of ship, for solving a difficult problem of handling surface of water floater, this rubbish cleaning boat includes the binary hull, the compressor of setting on the binary hull, the conveyer belt is extracted to the setting on the binary hull, the setting pushes up the water spray engine that moves ship motion at the binary hull, the **cargo hold** of setting on the binary hull and the V -arrangement baffle of setting on the binary hull, a difficult problem of handling surface of water floater has been solved, the beneficial effect who has protection surface of water environment, personnel's quantity of handling water surface garbage and significantly reduced, the efficiency of water surface garbage clear away is greatly improved and speed.

Classifications:

International (IPC 8-9): B63B1/10 B63B27/22 B63B35/32

B63H11/02 E02B15/10 (Advanced/Invention)

CPC: B63B1/10 B63B27/22 B63B35/32 B63H11/02 E02B15/104



Family:

Publication number	Publication date	Application number	Application date
CN106218806 A	20161214	CN201610831565	20160919
CN106218806 B	20190426	CN201610831565	20160919
CN206087175 U	20170412	CN201621062680U	20160919

Priority:

CN201610831565 20160919 CN201621062680U 20160919

Probable Assignee: ANHUI TECHNICAL COLLEGE MECHANICAL AND ELECTRICAL ENG

Assignee(s): (std): ANHUI TECHNICAL COLLEGE MECHANICAL AND ELECTRICAL ENG ; ANHUI TECHNICAL COLLEGE OF MECHANICAL AND ELECTRICAL ENGINEERING

Inventor(s): (std): HE XIAOFENG

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN106218806 A	20161214	LSPB	+	published / reissued	
CN106218806 A	20161214	LSPB	+C06	PUBLICATION	
CN106218806 A	20161214	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN106218806 B	20190426	LSGT	+	granted / extensions (spc, cpc, pte)	
CN106218806 B	20190426	LSGT	+GR01	PATENT GRANT	
CN106218806 B	20360919	PEXP		Calculated Patent Term Expiry	
CN206087175 U	20170412	LSGT	+	granted / extensions (spc, cpc, pte)	
CN206087175 U	20170412	LSGT	+GR01	PATENT GRANT	
CN206087175 U	20180904	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN206087175 U	20260919	PEXP		Calculated Patent Term Expiry	

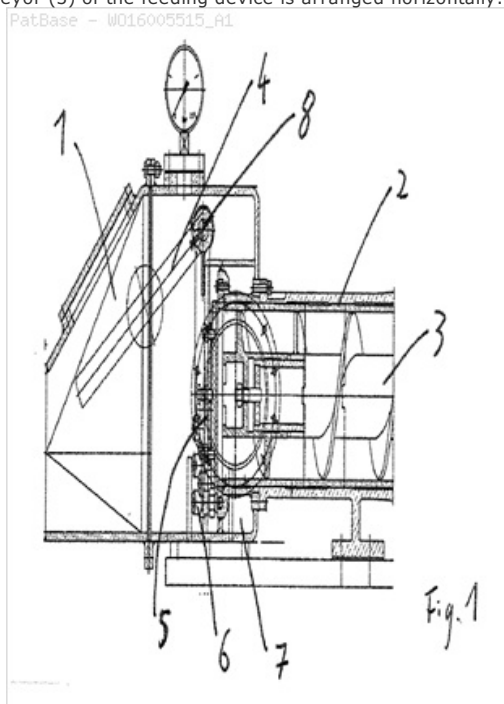
Title: SCREW PUMP FOR CONVEYING BULK MATERIAL

Abstract: The invention relates to a screw pump for conveying bulk material. The aim of the invention is to further develop existing screw pumps for use in ship unloading systems and to improve the feeding device for use in the ship unloading process. The feeding device according to the invention is characterized in particular **in that** the device arranged in the pressure region (1) for supplying a fluidizing agent (6) is arranged partly, largely, or completely on at least one horizontal plane extending through the conveying pipe (2) when the screw conveyor (3) of the feeding device is arranged horizontally.

Classifications:

International (IPC 8-9): B63B27/22 B65G53/08
B65G53/48 (Advanced/Invention)

CPC: B63B27/22 B65G53/08 B65G53/48



Family:

Publication number	Publication date	Application number	Application date
DE502014002589 D1	20170316	DE201450002589T	20140710
EP2966014 A1	20160113	EP20140176505	20140710
EP2966014 B1	20170201	EP20140176505	20140710
WO16005515 A1	20160114	WO2015EP65738	20150709

Priority:

EP20140176505 20140710

Probable Assignee: IBAU HAMBURG ING GES

Assignee(s): (std): IBAU HAMBURG ING GES ; IBAU HAMBURG INGENIEURGESELLSCHAFT

Assignee(s): IBAU HAMBURG INGENIEURGESELLSCHAFT INDUSTRIEBAU MBH

Inventor(s): (std): SCHIRMER JUHA

Agent(s): RAFFAY AND FLECK PATENTANWALTE; RAFFAY AND FLECK

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP2966014 A1	20160113	LSPB	+	published / reissued	
EP2966014 A1	20160113	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150903
EP2966014 A1	20160406	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20160308
EP2966014 A1	20161102	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20161006
EP2966014 B1	20170201	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2966014 B1	20170201	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH

EP2966014 B1	20170215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2966014 B1	20170215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 865383 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170215
EP2966014 B1	20170222	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: GERMAN
EP2966014 B1	20170316	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 502014002589 COUNTRY OF REF DOCUMENT : DE
EP2966014 B1	20170612	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2966014 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170201
EP2966014 B1	20170731	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 : 20170601
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EP2966014 B1	20170731	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 : 20170201
EP2966014 B1	20170731	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 : 20170201
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EP2966014 B1	20170831	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 : 20170501
EP2966014 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONNOFLAPSE : 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 : 20170201
EP2966014 B1	20170831	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 : 20170201
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EP2966014 B1	20170831	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 : 20170201
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EP2966014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170201
EP2966014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170201
EP2966014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170201
EP2966014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170201
EP2966014 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170201
EP2966014 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170720 YEAR OF FEE PAYMENT : 4
EP2966014 B1	20171103	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 502014002589 COUNTRY OF REF DOCUMENT : DE
EP2966014 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170201
EP2966014 B1	20171130	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 : 20170201
EP2966014 B1	20180110	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20171103
EP2966014 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170201
EP2966014 B1	20180228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2966014 B1	20180418	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2966014 B1	20180427	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20180330
EP2966014 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170731
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EP2966014 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170710
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EP2966014 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170710

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EP2966014 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180622 YEAR OF FEE PAYMENT : 5
EP2966014 B1	20190327	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20180710
EP2966014 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180710
EP2966014 B1	20190628	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 : 20170201
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EP2966014 B1	20340710	PEXP		Calculated Patent Term Expiry	
WO16005515 A1	20160114	LSPB	+	published / reissued	
WO16005515 A1	20170110	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16005515 A1	20170809	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 15736254 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

Title: FISH ELEVATOR

Abstract: 1. An elevator of the character described comprising a frame structure forming a vertical shaft adapted to be disposed through the hatchway of a boat, to extend to the bottom of a hold containing a fluid cargo and to project above the deck, a continuous 'conveyor belt, with buckets fixed thereto, operable vertically in the shaft, for removal of cargo from the hold and for lateral delivery thereof from the upper end of the shaft, power mechanism mounted on the upper end of the structure for driving the conveyor belt; said shaft being, permanently closed about all sides except the side facing the up-going run of the belt and provided at that side with a closing wall comprising sections that are successively demountable from the upper end of the wall clownvvvardly to provide for the inflow of cargo to the shaftover the top edge of that wall in accordance with the removal of the sections. ' I2.

Classifications:

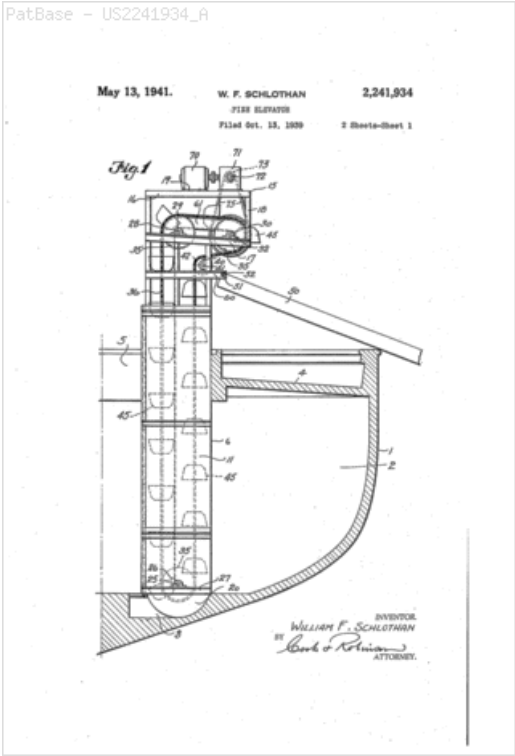
International (IPC 8-9): B65G17/12 (Advanced/Invention); B65G17/12 (Core/Invention)

International (IPC 1-7): B63B27/22

CPC: B65G17/126 B65G2201/04

European: B65G17/12D L65G201/04 L65G812/02F2D4B1A6

US: 198/523 198/629 198/703 198/734



Family:

Publication number	Publication date	Application number	Application date
US2241934 A	19410513	US19390299292	19391013

Priority:

US19390299292 19391013

Probable Assignee:

SCHLOTHAN WILLIAM F

Assignee(s): (std):

SCHLOTHAN WILLIAM F

Inventor(s): (std):

SCHLOTHAN WILLIAM F

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2241934 A	19410513	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: NATURAL GAS HYDRATE UNLOADING DEVICE

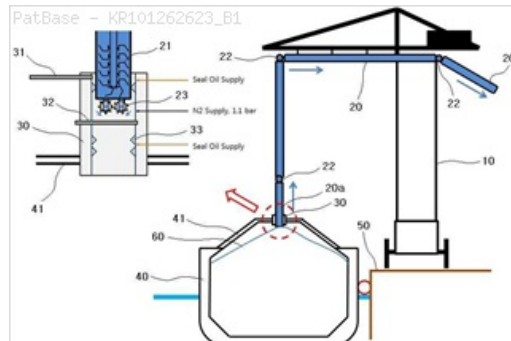
Abstract: PURPOSE: An NGH(Natural Gas Hydrate) unloading device is provided to efficiently load and unload a large quantity of NGH by efficiently forming the shape of a **cargo hold** of a NGH carrier. CONSTITUTION: An NGH unloading device comprises a transfer pipe loading unit(10), a transfer pipe(20), and a **cargo hold** connector(30). The transfer pipe loading unit is arranged in an unloading pier of NGH. The transfer pipe loading unit horizontally moves the transfer pipe along the unloading pier and then vertically moves the transfer pipe. One end of the transfer pipe is connected to a **conveyor belt**, and the other end thereof is connected to the **cargo hold** connector of a NGH carrier. The **cargo hold** connector is connected to the other end of the transfer pipe to unload the NGH from a **cargo hold** to the outside through the other end of the transfer pipe.

Classifications:

International (IPC 8-9): B63B25/04 B63B27/00

B65G67/60 (Advanced/Invention)

CPC: B65G67/60 B63B25/04 B65G15/26 B65G17/36 C10L3/06



Family:

Publication number	Publication date	Application number	Application date
KR101262623 B1	20130508	KR20120088880	20120814

Priority:

KR20120088880 20120814

Probable Assignee: KOREAN REGISTER OF SHIPPING CORP

Assignee(s): (std): KOREAN REGISTER OF SHIPPING CORP ; STX INST OF TECHNOLOGY CO LTD

Assignee(s): STX INSTITUTE OF TECHNOLOGY CO LTD ; KOREAN REGISTER OF SHIPPING CORPORATION ; STX INST OF TECHNOLOGY CO

Inventor(s): (std): KOH BYEONG UK ; KIM DONG EON ; KANG NAK WON ; KANG HO KEUN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
KR101262623 B1	20130508	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101262623 B1	20120814	LSES	A201	REQUEST FOR EXAMINATION	
KR101262623 B1	20130403	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR101262623 B1	20130430	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101262623 B1	20130502	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101262623 B1	20160414	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160414 YEAR OF FEE PAYMENT : 4
KR101262623 B1	20170418	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170418 YEAR OF FEE PAYMENT : 5
KR101262623 B1	20180503	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101262623 B1	20320814	PEXP		Calculated Patent Term Expiry	

Title: Pocket door ship loader

Abstract: A pocket dock ship loader is disclosed to include at least one pocket to accommodate dock site storage of bulk material, a first conveyor such as a tripper conveyor for transporting bulk material from an off-dock source to the pocket, a second conveyor such as a shuttle conveyor for transporting the bulk material from the pocket to a drop point above the cargo hatch of a vessel and means for regulating the flow of bulk material from the pocket to the shuttle conveyor, wherein the shuttle conveyor is extensible and retractable between a stowed position and an operating position. The ship loader also incorporates a purge conveyor structure for removing material from the material pockets in anticipation of the loading of different materials on a next subsequent vessel.

Classifications:

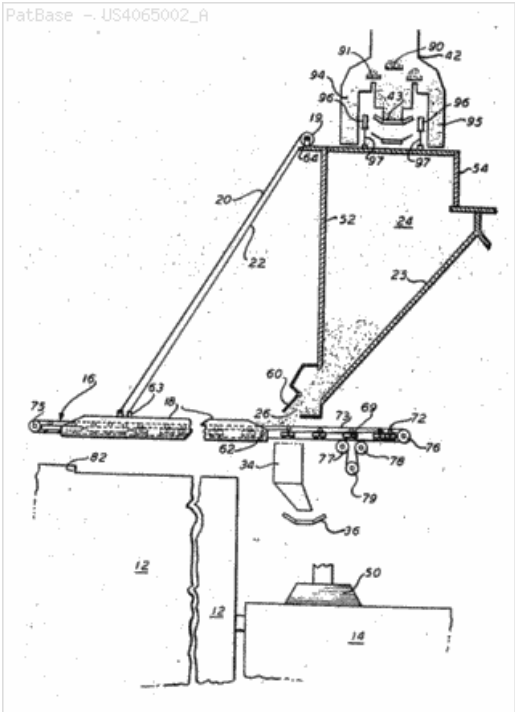
International (IPC 8-9): B65G67/60 (Advanced/Invention);
B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/10

CPC: B65G67/606

European: B65G67/60C

US: 214/14 414/140.9



Family:

Publication number	Publication date	Application number	Application date
US4065002 A	19771227	US19760679330	19760422

Priority:

US19760679330 19760422

Probable Assignee: ORBA CORP

Assignee(s): (std): ORBA CORP

Inventor(s): (std): APRIL JOSEPH RICHARD ; CUNNINGHAM JAMES THOMAS ; SNOW III FREDERICK ORREN ; YU A TOBEY

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US4065002 A	19771227	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: NATURAL GAS HYDRATE LOADING DEVICE

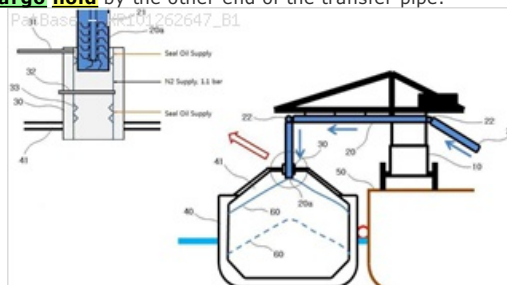
Abstract: PURPOSE: An NGH(Natural Gas Hydrate) loading device is provided to reduce the maintenance cost of an NGH carrier by directly loading NGH into a **cargo hold** of the NGH carrier with a loading device installed outside the NGH carrier. CONSTITUTION: An NGH loading device comprises a transfer pipe loading unit(10), a transfer pipe(20), and a **cargo hold** connector(30). The transfer pipe loading unit is arranged in a loading pier of NGH. The transfer pipe loading unit horizontally moves the transfer pipe along the loading pier and controls the height of the transfer pipe. One end of the transfer pipe is connected to a **conveyor belt**, and the other end thereof is connected to the **cargo hold** connector of an NGH carrier. A rotatable bucket is installed in an internal space of a body of the transfer pipe. The **cargo hold** connector is connected to the other end of the transfer pipe so that the NGH can be loaded into a **cargo hold** by the other end of the transfer pipe.

Classifications:

International (IPC 8-9): B63B25/04 B63B27/00

B65G67/60 (Advanced/Invention)

CPC: B65G67/60 B65G17/36 B65G69/008 C10L3/06 F25J2210/62



Family:

Publication number	Publication date	Application number	Application date
KR101262647 B1	20130508	KR20120088879	20120814

Priority:

KR20120088879 20120814

Probable Assignee: KOREAN REGISTER OF SHIPPING CORP

Assignee(s): (std): KOREAN REGISTER OF SHIPPING CORP ; STX INST OF TECHNOLOGY CO LTD

Assignee(s): STX INSTITUTE OF TECHNOLOGY CO LTD ; KOREAN REGISTER OF SHIPPING CORPORATION ; STX INST OF TECHNOLOGY CO

Inventor(s): (std): KANG HO KEUN ; KANG NAK WON ; KOH BYEONG UK ; KIM DONG EON

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
KR101262647 B1	20130508	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101262647 B1	20120814	LSES	A201	REQUEST FOR EXAMINATION	
KR101262647 B1	20130403	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR101262647 B1	20130430	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101262647 B1	20130502	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101262647 B1	20160414	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160414 YEAR OF FEE PAYMENT : 4
KR101262647 B1	20170418	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170418 YEAR OF FEE PAYMENT : 5
KR101262647 B1	20180503	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101262647 B1	20320814	PEXP		Calculated Patent Term Expiry	

Title: Self-unloading ship with two tunnel belts and a central reclaimer

Abstract: A self-unloading ship includes two longitudinal tunnels with conveyor belts below two rows of hoppers at the bottom of the holds which extend nearly from one end of the ship to the other for unloading bulk material such as coal, iron ore, gypsum or the like. During unloading, the hopper gates are opened and the bulk material on the starboard and port sides of the cargo holds flows by gravity through the open hoppers onto the tunnel belts. A central ridge of bulk material remaining on the bottom floor of the holds between the two rows of hoppers is moved to the hoppers by a wheeled reclaimer having oppositely pitched augers which split the central ridge of bulk material, moving one half to the starboard row of hoppers and one half to the port row of hoppers. The reclaimer includes a power driven, endless chain harrow which drags down the central ridge of bulk material to prevent avalanching and an endless belt brush for cleaning the hold floors between the two rows of hoppers. The forward hold of the ship extends into the area of the bow having diminished width with the outboard walls of the forward hold converging to a reduced distance therebetween. Such ship construction (which affords increased capacity) is possible because of the use of two laterally spaced rows of hoppers and a central reclaimer for clearing bulk material from the floor between the hoppers. The inclined surfaces of the holds and their hoppers may be lined with a smooth plastic or similar material to improve the gravity flow of bulk material from the holds.

Classifications:

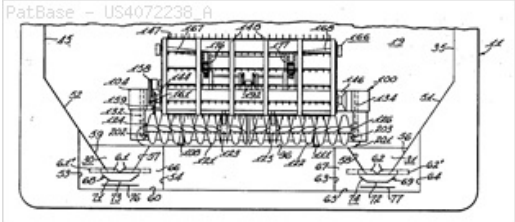
International (IPC 8-9): B63B27/00 B63B27/22 (Advanced/Invention); B63B27/00 (Core/Invention)

International (IPC 1-7): B63B27/22

CPC: B63B27/22

European: B63B27/22

US: 198/669 214/15E 414/133 414/141.9 414/142.3



Family:

Publication number	Publication date	Application number	Application date
CA1064423 A1	19791016	CA19770284838	19770815
US4072238 A	19780207	US19760744516	19761124

Priority:

US19760744516 19761124

Probable Assignee: ALLIS CHALMERS

Assignee(s): (std): ALLIS CHALMERS ; UPPER LAKES SHIPPING LTD

Assignee(s): VAUGHAN WARREN R ; ALLIS CHALMERS CORP

Inventor(s): (std): VAUGHAN WARREN R

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US4072238 A	19780207	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Dual-function cargo discharge apparatus

Abstract: In a self-unloading vessel having hoppers with discharge outlets for discharging either lump or pulverulent material onto an unloading conveyor, discharge apparatus includes a wheeled carriage supporting two separate gate assemblies thereon and movable to bring one or the other of the gate assemblies into discharge relationship with the hopper outlet. One gate assembly includes a horizontally sliding gate which is driven between open and closed positions by a drive cylinder. The other gate assembly includes fluidized bed airslide apparatus for directing pulverulent material to a discharge passage closed by a butterfly valve. Two embodiments are disclosed. In one a separate drive cylinder is provided for moving the carriage between its two positions along associated rails. In the other the one gate can be releaseably pinned to the other gate assembly. The relative positions of the two gate assemblies are reversed in the two embodiments.

Classifications:

International (IPC 8-9): B63B27/00 B63B27/22

B63B35/30 (Advanced/Invention);

B63B27/00 B63B35/00 (Core/Invention)

International (IPC 1-7): B63B27/00 B63B27/22 B65G65/02

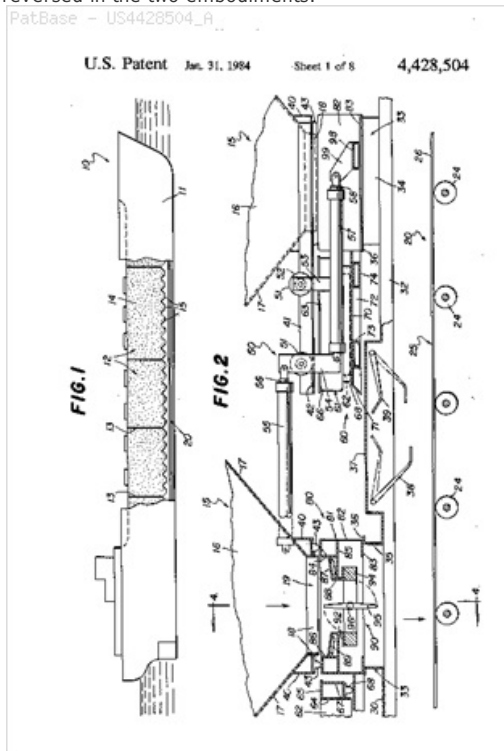
B65G65/42 B65G67/60

CPC: B63B27/22 B63B35/305

European: B63B27/22 B63B35/30D

US: 105/247 105/280 198/532 222/461 222/545 222/55 222/559

277/34 277/646 414/142.3 414/144



Family:

Publication number	Publication date	Application number	Application date
CA1204072 A1	19860506	CA19820416642	19821130
EP0080733 A2	19830608	EP19820111044	19821130
EP0080733 A3	19831130	EP19820111044	19821130
ES517869 A0	19840101	ES19820517869	19821201
ES517869 A2	19840201	ES19820517869	19821201
ES8401905 A1	19840101	ES19820517869	19821201
US4428504 A	19840131	US19810326669	19811202

Priority:

US19810326669 19811202 CA19820416642 19821130

Probable Assignee: AMERICAN STEAMSHIP

Assignee(s): (std): STEARN R A INC ; AMERICAN STEAMSHIP

Assignee(s): AMERICAN STEAMSHIP CO ; AMERICAN STEAMSHIP CO 3250 MARINE MIDLAND CENTER BUFFALO N ; AMERICAN STEAMSHIP COMPANY ; AMERICAN STEAMSHIP COMPANY 3250 MARINE MIDLAND CENTER BUFFALO N ; RA STEARN INC ; R A STEARN INC ; STEARN R A INC 253 NORTH FIRST AVE STURGEON BAY ; STEARN R A INC 253 NORTH FIRST AVE STURGEON BAY WISCONSIN ; BASSETT NOEL L ; KING HENRY R ; STEARN RA INC

Inventor(s): (std): BASSETT NOEL L ; KING HENRY R ; BASSETT NOEL L

Agent(s): SMART AND BIGGAR

Designated states: DE FR GB IT

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP0080733 A2	19830608	LSPB	+	published / reissued	
EP0080733 A3	19840613	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19840402
EP0080733 A3	19860326	LSRV	-18R	APPLICATION REFUSED	EFFECTIVE DATE : 19851103
ES8401905 A1	19840101	LSGT	+	granted /	

				extensions (spc, cpc, pte)	
ES8401905 A1	20040101	PEXP		Calculated Patent Term Expiry	
US4428504 A	19840131	LSGT	+	granted / extensions (spc, cpc, pte)	
US4428504 A	19811202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AMERICAN STEAMSHIP COMPANY, BUFFALO, NY A CORP. OF OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS: BASSETT, NOEL L.; KING, HENRY R.; REEL/FRA: 003963/0687; SIGNING DATES FROM 19811027 TO 19811106
US4428504 A	19831130	LSGT	PAT1	Patented Case	
US4428504 A	19870202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4428504 A	19920202	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4428504 A	19920407	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19920131
US4428504 A	20180122	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4428504 A	20180122	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

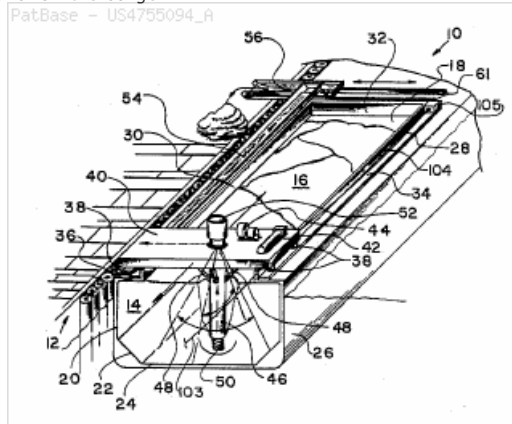
Title: Self-unloading barge and unloading apparatus therefor

Abstract: A barge which is capable of offloading bulk cargoes to dockside without requiring assistance from onshore equipment or other floating equipment. The barge has a movable auger support housing and a to move the housing. An auger container is pivotably mounted to the housing with a rotating screwshaped auger mounted within the container. A first conveyor is located within the support housing to transport bulk cargo from the auger which lifts the cargo, from a lower level to a higher level, to a second conveyor located along the edge of the **cargo hold**. A moveable third conveyor is positioned to receive cargo from the second conveyor and to transport the material off the barge.

Classifications:

International (IPC 8-9): B63B27/22 B65G21/00
 B65G67/60 (Advanced/Invention);
 B63B27/00 B65G21/00 B65G67/00 (Core/Invention)
International (IPC 1-7): B65G67/60
CPC: B63B27/22 B65G21/005 B65G67/606
European: B63B27/22 B65G21/00B B65G67/60C
US: 198/513 198/518 414/140 414/140.7 414/145

PatBase - US4755094_A



Family:

Publication number	Publication date	Application number	Application date
US4755094 A	19880705	US19860886976	19860716

Priority:

US19860886976 19860716

Probable Assignee:

EXPRESS MARINE INC

Assignee(s): (std):

EXPRESS MARINE INC

Inventor(s): (std):

KAUCIC ROBERT A

Legal status (INPADOC)

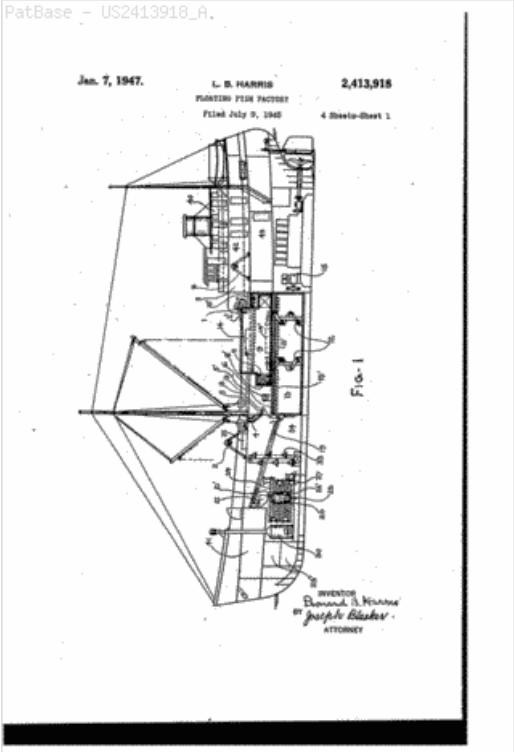
[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US4755094 A	19880705	LSGT	+	granted / extensions (spc, cpc, pte)	
US4755094 A	19860716	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EXPRESS MARINE, INC., 29TH STREET ON THE DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:KAUCIC, ROBERT A.; REEL/FRA:004642/0592
US4755094 A	19880504	LSGT	PAT1	Patented Case	
US4755094 A	19920103	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4755094 A	19960102	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4755094 A	20000702	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4755094 A	20000905	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20000705
US4755094 A	20180130	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4755094 A	20180130	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

Title: FLOATING FISH FACTORY

Abstract: 1. In a Hshing ship of the class described, fish processing machinery fixedly positioned in the bow' end of the ship, propulsion machinery Hxedly positioned in the stern of the ship, refrigeration machinery in the stern of said ship, said propulsion and refrigeration machinery balancing said nsh processing machinery so that said ship rides in a balanced position neither down at the bow or stern, a variable cargo and refrigeration space arnidships of said ship for the fish and by products processed in said ship and by said fish processing machinery, whereby the ship will not be down at the bow or stern regardless of the Weight of the variable load in said space, a 'tween deck over the variable **cargo hold** where fish are initially processed and forwarded to said refrigeration space, and an automatic conveyor means for conveying fish or parts thereof from said 'tween deck to said dsh processing machinery.

Classifications:
International (IPC 8-9): B63B35/24 (Advanced/Invention); B63B35/14 (Core/Invention)
International (IPC 1-7): B63B35/14 B63J2/12
CPC: B63B35/24
European: B63B35/24
US: 114/255 43/6.5 43/8 452/177 452/198 52/27 99/484



Family:

Publication number	Publication date	Application number	Application date
US2413918 A	19470107	US19450603927	19450709

Priority:
US19450603927 19450709

Probable Assignee: HARRIS LEONARD B
Assignee(s): (std): HARRIS LEONARD B
Inventor(s): (std): HARRIS LEONARD B

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2413918 A	19470107	LSGT	+	granted / extensions (spc, cpc, pte)	

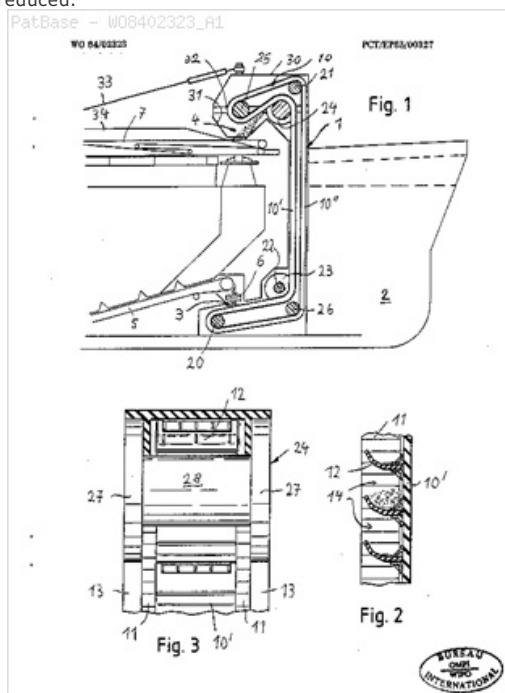
Title: BELT CONVEYOR FOR THE INCLINED AND VERTICAL TRANSPORT OF BULK MATERIAL

Abstract: A belt conveyor (1) for the vertical transport of bulk material, particularly in a self unloading boat (1), operates with an endless transport belt (10) provided with undulated lateral edges (11) and with transversally arranged driving elements (12); said belt is led horizontally or with a slight slope to a lower loading station (3), it then makes a concave change of direction throughout a vertical and rectilinear transport run, at the upper end of which it deviates once more with a concave configuration by means of a deviation and unloading unit (24) towards a drive drum (25) before starting again in a convex way towards another upper end drum (21) arranged above the deviation and unloading unit. The deviation and unloading unit (24) comprises two deviation wheels (27) which are axially spaced apart and cooperate with the free edge areas (13) of the transport belt (10), and further comprises, between said deviation wheels, a drum envelope (28) having a smaller diameter that is in contact with the head of the undulated edges (11) during the running of the transport belt (10) so as to unload from the drum envelope (28) the bulk material to the unloading side of the deviation and unloading unit (24). The driving drum (25) and the deviation and unloading unit (24) are mounted on a common transversal and horizontal support (32). The belt conveyor (1) is of a simple construction and includes very few pivoting parts. Since its loading station (4) is arranged above the loading station (3) and since the transport belt (10) is guided in a rectilinear way throughout the vertical transport travel, the overall dimensions of the conveyor are reduced.

Classifications:**International (IPC 8-9):** B63B27/22 B65G15/42

B65G67/60 (Advanced/Invention);

B63B27/00 B65G15/32 B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/22 B65G15/42 B65G67/60**CPC:** B63B27/22 B65G15/42 B65G67/606 B65G2201/04**European:** B63B27/22 B65G15/42 B65G67/60C L65G201/04**Family:**

Publication number	Publication date	Application number	Application date
AU198424147 A1	19840705	AU19840024147	19831208
EP0128915 A1	19841227	EP19840900043	19831208
WO8402323 A1	19840621	WO1983EP00327	19831208

Priority:

DE19823245430 19821208 WO1983EP00327 19831208

Probable Assignee: SCHOLTZ CONRAD AG**Assignee(s):** (std): SCHOLTZ AG CONRAD ; SCHOLTZ CONRAD AG**Assignee(s):** CONRAD SCHOLTZ AG**Inventor(s):** (std): JURGEN PAELKE ; PAELKE JUERGEN ; PAELKE JURGEN**Designated states:** AT AU BE CH DE FI FR GB JP LI LU NL NO SE US**Legal status (INPADOC)**[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU198424147 A1	19840705	LSPB	+	published / reissued	
EP0128915 A1	19841227	LSPB	+	published / reissued	
EP0128915 A1	19850724	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19850403
WO8402323 A1	19840621	LSPB	+	published / reissued	

Title: Goods handling system

Abstract: PCT No. PCT/SE97/01255 Sec. 371 Date Dec. 30, 1998 Sec. 102(e) Date Dec. 30, 1998 PCT Filed Jul. 9, 1997 PCT Pub. No. WO98/01381 PCT Pub. Date Jan. 15, 1998 The present invention is a goods handling system incorporating a mobile unit for loading and unloading goods, preferably positioned on load carriers, to and from a ship. The unit incorporates at least one substantially horizontal transport arm with at least one transport track arranged along it and at each end of a first and a second substantially vertical lifting device with a vertically adjustable loading platform. The second lifting device is constituted by a line system arranged in the upper part of the transport arm having a free-hanging loading platform. The loading platform is provided with control means for guiding the platform into a receiving station at the end of a lifting phase to level with the transport track. On the transport arm above the transport track is arranged a traverse crane, the trolley of which is displaceable on a crane bridge arranged transversely to the longitudinal direction of the transport arm, which crane bridge is movable along fixed crane rails arranged in the longitudinal direction of the traverse crane.

Classifications:

International (IPC 8-9): B63B27/00 B65G63/00

B65G67/60 (Advanced/Invention);

B65G67/60 (Advanced/Non-invention);

B65G67/00 (Core/Invention)

International (IPC 1-7): B63B27/00 B63B27/10 B65G B65G63/00

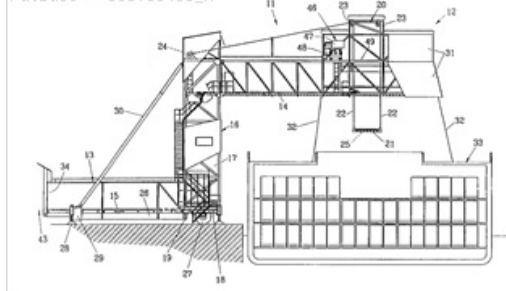
B65G67/30 B65G67/60

CPC: B65G67/603

European: B65G67/60A

US: 212/325 212/326 414/137.4 414/139.9 414/140.1 414/140.3 414/140.4 414/141.3

PatBase - US6068435_R



Family:

Publication number	Publication date	Application number	Application date
AU199736391 A1	19980202	AU19970036391	19970709
AU722778 B2	20000810	AU19970036391	19970709
BRPI9710154 A	19990810	BR1997PI10154	19970709
CA2260063 AA	19990108	CA19972260063	19970709
CN1072176 C	20011003	CN19971096398	19970709
CN1225069 A	19990804	CN19971096398	19970709
EP0912429 A1	19990506	EP19970933116	19970709
JP2000514766 T2	20001107	JP19980505160T	19970709
KR20000023671 A	20000425	KR19997000126	19990109
NO986191 A	19990112	NO19980006191	19981230
NO986191 A0	19981230	NO19980006191	19981230
NO986191 L	19990112	NO19980006191	19981230
PL331016 A1	19990621	PL19970331016	19970709
SE508472 C2	19981012	SE19960002712	19960709
SE9602712 A	19980110	SE19960002712D	19960709
SE9602712 A0	19960709	SE19960002712	19960709
SE9602712 L	19980110	SE19960002712	19960709
US6068435 A	20000530	US19980214211	19981230
WO9801381 A1	19980115	WO1997SE01255	19970709

Priority:

SE19960002712 19960709 WO1997SE01255 19970709

Probable Assignee: JUNOVERKEN AB

Assignee(s): (std): BOERJESSON KJELL ; JOONOVOKEN AB ; WIAB WIDHOLMS IND AB ; WIAB WIDHOLMS IND SE SE AB ; WIAB WIDHOLMS IND AB SE SE

Assignee(s): WIAB WIDHOLMS INDUSTRI PO BOX AB ; WIAB WIDHOLMS INDUSTRI AB ; WIAB WIDHOLMS INDUSTRI AB SE SE ; JUNOVERKEN AB ; JUNOVERKEN BOX AB ; BORJESSON KJELL

Inventor(s): (std): B RJESSON KJELL ; BEJESSON KJELL ; BOERJESSON KJELL ; BORJESSON KJELL ; WURJASON KJEL

Inventor(s): B 247 RJESSON KJELL ; KJELL BEJESSON ; KJELL BOERJESSON ; KJELL BORJESSON

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; MARKS AND CLERK

Designated states: AL AM AT AU AZ BA BB BE BG BR BY CA CH CN CU CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SL SZ TJ TM TR TT UA UG US UZ VN YU ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199736391 A1	19980202	LSPB	+	published / reissued	
AU722778 B2	20000810	LSGT	+	granted / extensions (spc, cpc, pte)	
AU722778 B2	20001207	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU722778 B2	20010201	LSAS	PC	ASSIGNMENT REGISTERED	PARTYTYPE : OWNER OWNER : JUNOVERKEN AB OLDPARTY : FORMER OWNER WAS: WIAB WIDHOLMS INDUSTRI AB

AU722778 B2	20040212	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU722778 B2	20170709	PEXP		Calculated Patent Term Expiry	
BRPI9710154 A	19990810	LSPB	+	published / reissued	
BRPI9710154 A	20010417	LSAS	PCP	TRANSFER PENDING	
BRPI9710154 A	20010918	LSAS	PC	TRANSFER	TEXT : JUNOVERKEN AB (SE)
BRPI9710154 A	20040608	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI9710154 A	20050628	LSRV	-B11D	DISMISSAL ACC. ART. 38, PAR 2 OF IPL - FAILURE TO PAY FEE AFTER GRANT IN TIME	
CA2260063 AA	19990108	LSPB	+	published / reissued	
CA2260063 AA	20030709	LSLE	-FZDE	DEAD	
CN1072176 C	20011003	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1072176 C	20011003	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1072176 C	20030903	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON- PAYMENT OF THE ANNUAL FEE	
CN1072176 C	20060224	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1049070 COUNTRY OF REF DOCUMENT : HK
CN1072176 C	20170709	PEXP		Calculated Patent Term Expiry	
CN1225069 A	19990804	LSPB	+	published / reissued	
CN1225069 A	19990804	LSPB	+C06	PUBLICATION	
CN1225069 A	20010502	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT APPLICATION	
CN1225069 A	20010502	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	TEXT : CORRECT; APPLICANT; FROM: WIAB WIDHOLMS INDUSTRI AB TO: JUNEAU WAELENS CO., LTD.
EP0912429 A1	19990506	LSPB	+	published / reissued	
EP0912429 A1	19990506	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19990129
EP0912429 A1	20010314	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : JUNOVERKEN AB
EP0912429 A1	20010418	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20010301
EP0912429 A1	20030102	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20020625
JP2000514766 T2	20001107	LSPB	+	published / reissued	
KR20000023671 A	20000425	LSPB	+	published / reissued	
KR20000023671 A	20001220	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20000023671 A	20020710	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
NO986191 A	19990112	LSPB	+	published / reissued	
NO986191 A	20030331	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
PL331016 A1	19990621	LSPB	+	published / reissued	
SE508472 C2	19981012	LSGT	+	granted / extensions	

(spc, cpc, pte)					
SE508472 C2	20040302	LSLE	-NUG	PATENT HAS LAPSED	
SE508472 C2	20160709	PEXP		Calculated Patent Term Expiry	
SE9602712 A	19980110	LSPB	+	published / reissued	
US6068435 A	20000530	LSGT	+	granted / extensions (spc, cpc, pte)	
US6068435 A	19981230	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WIAB WIDHOLMS INDUSTRI AB, SWEDEN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: BORJESSON, KJELL; REEL/FRAME: 010008/0320 EFFECTIVE DATE : 19981221
US6068435 A	20000517	LSGT	PAT1	Patented Case	
US6068435 A	20001214	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JUNOVERKEN AB, SWEDEN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: WIAB WIDHOLMS INDUSTRI AB; REEL/FRAME: 011363/0204 EFFECTIVE DATE : 20001117
US6068435 A	20040601	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6068435 A	20040727	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20040530
US6068435 A	20180123	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6068435 A	20180123	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6068435 A	20181230	PEXP		Calculated Patent Term Expiry	
WO9801381 A1	19980115	LSPB	+	published / reissued	
WO9801381 A1	19970709	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 97196398.3 COUNTRY OF REF DOCUMENT : CN
WO9801381 A1	19981230	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 09214211 COUNTRY OF REF DOCUMENT : US
WO9801381 A1	19990108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2260063 COUNTRY OF REF DOCUMENT : CA
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WO9801381 A1	19990129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1997933116 COUNTRY OF REF DOCUMENT : EP
WO9801381 A1	19990506	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1997933116 COUNTRY OF REF DOCUMENT : EP
WO9801381 A1	19990512	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642

WO9801381 A1	20000425	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019997000126 COUNTRY OF REF DOCUMENT : KR
WO9801381 A1	20020625	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1997933116 COUNTRY OF REF DOCUMENT : EP
WO9801381 A1	20020710	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019997000126 COUNTRY OF REF DOCUMENT : KR

Title: MULTI-MODE SHIP FOR TRANSPORTING VEHICLES

Abstract: The multi-mode ship uses bulk cargo flow-through vehicle decks that are capable of supporting commercial vehicles, military vehicles, and other general cargo. Bulk cargo is loaded into the multi-mode ship with a bulk cargo transport system. Bulk cargo is loaded on board the multi-mode ship and is discharged from some or all of the vehicle decks, where the bulk cargo flows downward through the vehicle decks and settles on the bottom of the multi-mode ship. The bulk cargo then piles upward through the vehicle decks until it reaches the desired load. The bulk cargo transport system includes conveyors, upper and lower, and at least one vertical conveyor for transporting bulk cargo to, from, and within a **cargo hold** of the multi-mode ship. Further, the multi-mode ship preferably includes liquid storage tanks that are shaped to provide a preferably funnel-like storage area within the **cargo hold** for funneling bulk cargo toward the lower conveyors of the bulk cargo transport system to further provide efficient and complete unloading of the **cargo hold** of bulk cargo.

Classifications:

International (IPC 8-9): B63B25/00 B63B25/02 (Advanced/Invention); B63B25/00 (Core/Invention)

International (IPC 1-7): B63B25/00 B63B25/02

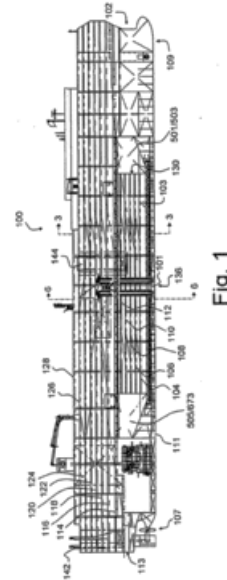
CPC: B63B25/002 B63B25/008 B63B25/04

European: B63B25/00B B63B25/00B4 B63B25/04

US: 114/73 114/73P

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Family:

Publication number	Publication date	Application number	Application date
US2005193937 AA	20050908	US20040792433	20040303
US6966272 BB	20051122	US20040792433	20040303

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Probable Assignee: GREAT AMERICAN LINES INC

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Patent	Date recorded	Event group	Code	Event	Details
US2005193937 AA	20050908	LSPB	+	published / reissued	
US6966272 BB	20051122	LSGT	+	granted / extensions (spc, cpc, pte)	
US6966272 BB	20040303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GREAT AMERICA LINES, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: FREELUND, AVRUM A.; SUGAHARA, BYRON M.; MERRILL, KENT A.; AND OTHERS; REEL/FRAME: 015052/0484 EFFECTIVE DATE : 20040301
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 A.; SUGAHARA, BYRON M.;
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US6966272 BB	20090522	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6966272 BB	20131122	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6966272 BB	20131223	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6966272 BB	20131223	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6966272 BB	20140114	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20131122
US6966272 BB	20240303	PEXP		Calculated Patent Term Expiry	