

Title (en)

Device for loading and/or unloading a cargo hold or storage space and method for loading and/or unloading a cargo hold or storage space

Title (de)

Vorrichtung zum Be- und/oder Entladen eines Laderaumes bzw. Lagerraumes bzw. Verfahren zum Be- und/oder Entladen eines Laderaumes bzw. Lagerraumes

Title (fr)

Dispositif de chargement et/ou déchargement d'une soute ou d'un espace de stockage et procédé de chargement et/ou déchargement d'une soute ou d'un espace de stockage

Publication

**EP 1958915 A3 20120815 (DE)**

Application

**EP 08006281 A 20060210**

Priority

- EP 06706858 A 20060210
- DE 202005002315 U 20050211

Abstract (en)

[origin: DE202005002315U1] A bulk grain cargo is loaded or unload to/from a ship by a mechanical grab (5) and hoist suspended from an overhead gantry crane. The grab is linked to a control system. The position of the bucket grab is continually monitored by a sensor to detect pendulum motion.

IPC 8 full level

**B66C 13/06** (2006.01); **B66C 13/46** (2006.01)

CPC (source: EP)

**B66C 13/063** (2013.01); **B66C 13/46** (2013.01)

Citation (search report)

- [YP] DE 202005002315 U1 20050616 - ISAM AG [DE]
- [A] DE 19756875 A1 19990701 - SIEMENS AG [DE]
- [A] DE 19947739 A1 20010412 - FROELICH KARIN [DE]
- [A] FR 2704847 A1 19941110 - BERTIN & CIE [FR]
- [A] DE 10064182 A1 20020508 - LIEBHERR WERK NENZING [AT]
- [A] US 6126023 A 20001003 - DURRANT-WHYTE HUGH [AU], et al
- [A] US 5392935 A 19950228 - KAZAMA KEIZO [JP], et al
- [AP] US 2005103738 A1 20050519 - RECKTENWALD ALOIS [DE], et al
- [A] DE 4238795 A1 19930701 - HINUEBER EDGAR VON DIPL ING [DE]
- [XY] LOUDA M A ET AL: "INS-based identification of quay-crane spreader yaw", ROBOTICS AND AUTOMATION, 1998. PROCEEDINGS. 1998 IEEE INTERNATIONAL CONFERENCE ON LEUVEN, BELGIUM 16-20 MAY 1998, NEW YORK, NY, USA,IEEE, US, vol. 4, 16 May 1998 (1998-05-16), pages 3310 - 3315, XP010281361, ISBN: 978-0-7803-4300-9

Cited by

CN103499322A; CN103407883A; DE102018005068A1; US11987476B2; WO2012174755A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**DE 202005002315 U1 20050616**; EP 1851157 A2 20071107; EP 1958915 A2 20080820; EP 1958915 A3 20120815; EP 1958915 B1 20160127; EP 1958915 B8 20160608; WO 2006084739 A2 20060817; WO 2006084739 A3 20061102

DOCDB simple family (application)

**DE 202005002315 U 20050211**; EP 06706858 A 20060210; EP 08006281 A 20060210; EP 2006001234 W 20060210