

Title (en)
MINERAL LIFTING SYSTEM AND MINERAL LIFTING METHOD

Title (de)
MINERALAUSHEBESYSTEM UND MINERALAUSHEBEVERFAHREN

Title (fr)
SYSTÈME DE LEVAGE DE MINÉRAUX ET PROCÉDÉ DE LEVAGE DE MINÉRAUX

Publication
EP 3342976 A4 20190807 (EN)

Application
EP 16841180 A 20160406

Priority

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- JP 2016061280 W 20160406

Abstract (en)
[origin: EP3342976A1] A mineral lifting system S includes a seabed working machine 13, having an excavator 131, excavating minerals at a seabed, and a slurry pump 132, sucking in and pumping a solid-liquid mixture of the minerals and seawater, a generator, supplying electric power to the seabed working machine 13 by an electric power cable 12, a main float 20, a mineral lifting pipe 21, conveying the solid-liquid mixture to the main float 20 side, auxiliary floats 22, mounted to the mineral lifting pipe 21 at predetermined intervals and imparting a buoyancy, and a sorting unit 3, sorting and collecting the minerals from the solid-liquid mixture conveyed to the main float 20 side.

IPC 8 full level
E21B 17/01 (2006.01); **E21C 50/00** (2006.01)

CPC (source: EP KR US)
E02F 3/8858 (2013.01 - US); **E02F 3/905** (2013.01 - US); **E02F 5/006** (2013.01 - US); **E21B 17/01** (2013.01 - US);
E21B 17/012 (2013.01 - EP US); **E21C 50/00** (2013.01 - EP KR US)

Citation (search report)

- [X1] US 3429062 A 19690225 - NELSON ARTHUR J
- [XY1] WO 2013090976 A1 20130627 - NAUTILUS MINERALS PACIFIC PTY [AU]
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- [X] US 4685742 A 19870811 - MOREAU JEAN-PIERRE L [BE]
- [Y] JP 5432022 B2 20140305
- See references of WO 2017038148A1

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Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
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EP 16841180 A 20160406; AU 2016314824 A 20160406; CA 2964213 A 20160406; CN 201680003371 A 20160406; JP 2016061280 W 20160406; JP 2017510600 A 20160406; KR 20187006199 A 20160406; TW 106106507 A 20170224; US 201615523026 A 20160406