

Title (en)
PUMPING DEVICE

Title (de)
PUMPENVORRICHTUNG

Title (fr)
DISPOSITIF DE POMPE

Publication
EP 2329147 A2 20110608 (DE)

Application
EP 09777900 A 20090814

Priority

- EP 2009005928 W 20090814
- EP 08014528 A 20080814
- EP 09777900 A 20090814

Abstract (en)
[origin: EP2154371A1] The device has a pulsator as a driving element for a main pump head (11) that lies in a conveyor line (15). The head has an operating area (18) with a check valve on a suction side (16) and a pressure control valve (17) on a pressurized side. An operating area (20) of the pulsator stays in direct connection with the operating area of the head over a recovery pipe (12), so that the pulsator intakes oscillating pumping medium (21) from the conveyor line into the head operating area. The operating area of the pulsator is connected with a suction side of the conveyor line via a venting valve.

IPC 8 full level
F04B 43/067 (2006.01); **F04B 43/06** (2006.01); **F04B 53/06** (2006.01); **F04B 53/08** (2006.01)

CPC (source: EP US)
F04B 43/067 (2013.01 - EP US); **F04B 53/06** (2013.01 - EP US); **F04B 53/08** (2013.01 - EP US)

Citation (search report)
See references of WO 2010017997A2

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

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2154371 A1 20100217; **EP 2154371 B1 20180919**; BR PI0917663 A2 20151201; CN 102124226 A 20110713; CN 102124226 B 20140917; DK 200800165 U3 20091211; EP 2329147 A2 20110608; EP 2329147 B1 20191218; ES 2773043 T3 20200709; PL 2329147 T3 20200629; US 2011135514 A1 20110609; WO 2010017997 A2 20100218; WO 2010017997 A3 20100408

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