

Title (en)

MAGNETIC SYSTEM FOR VIBRATING PISTON PUMPS

Title (de)

MAGNETISCHE VORRICHTUNG FÜR SCHWINGKOLBENPUMPEN

Title (fr)

SYSTEME MAGNÉTIQUE POUR POMPES À PISTON OSCILLANT ÉLECTROMAGNÉTIQUE

Publication

**EP 2993346 A1 20160309 (EN)**

Application

**EP 15382428 A 20150816**

Priority

ES 201400676 U 20140819

Abstract (en)

Vibrating liquid pump with an electromagnetic system comprising a coil (1); a metallic frame consisting on a "U" shaped piece (2) and a lower plate closure (3) which are placed around the coil (1) and the bushings (7); the screw stud (4) is responsible for bonding and fixing the set trough the driver chamber (5), where the magnetic core (6) moves longitudinally and in alternate direction. The screw stud (4) of the magnetic system join the components (2, 3, 7, 5) in a single assembly operation and is arranged behind and axially aligned the magnetic core (6) to optimize the attractive force and reduce the amount of copper required in the coil (1).

IPC 8 full level

**F04B 19/22** (2006.01); **F04B 17/04** (2006.01); **F04B 53/00** (2006.01); **F04B 53/14** (2006.01); **F04B 53/16** (2006.01); **F04B 53/22** (2006.01)

CPC (source: EP US)

**F04B 17/04** (2013.01 - US); **F04B 17/042** (2013.01 - EP US); **F04B 19/22** (2013.01 - US); **F04B 53/001** (2013.01 - US); **F04B 53/14** (2013.01 - US); **F04B 53/16** (2013.01 - US); **F04B 53/22** (2013.01 - EP US)

Citation (search report)

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- [Y] DE 102012107983 A1 20130228 - JIMING LV [CN]
- [A] DE 202007019534 U1 20130626 - JOHNSON ELECTRIC DRESDEN GMBH [DE]
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Cited by

EP3279473A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2993346 A1 20160309**; **EP 2993346 B1 20200325**; ES 1123905 U 20140922; ES 1123905 Y 20150123; ES 2809233 T3 20210303; US 2016053750 A1 20160225

DOCDB simple family (application)

**EP 15382428 A 20150816**; ES 15382428 T 20150816; ES 201400676 U 20140819; US 201514827272 A 20150815