

Title (en)

VIBRATION-REDUCING METHOD FOR COMPRESSING DIAPHRAGM PUMP

Title (de)

SCHWINGUNGSDÄMPFUNGSVERFAHREN ZUM KOMPRIMIEREN EINER MEMBRANPUMPE

Title (fr)

PROCÉDÉ DE RÉDUCTION DES VIBRATIONS POUR UNE POMPE À MEMBRANE DE COMPRESSION

Publication

**EP 3094864 A4 20171108 (EN)**

Application

**EP 14878507 A 20141224**

Priority

- US 201461928162 P 20140116
- US 2014072320 W 20141224

Abstract (en)

[origin: US2015198154A1] A vibration-reducing method for reducing vibrations and vibration noise in a compressing diaphragm pump includes the step of disposing a vibration-reducing unit between the pump head body and a diaphragm membrane to reduce a length of the moment arm, and therefore of the torque, generated upon up and down movement of the diaphragm membrane during pumping.

IPC 8 full level

**F04B 53/00** (2006.01)

CPC (source: EP US)

**F04B 39/0044** (2013.01 - EP US); **F04B 43/026** (2013.01 - EP US); **F04B 53/003** (2013.01 - EP US)

Citation (search report)

- [A] US 2011097227 A1 20110428 - CAI YING LIN [CN], et al
- [A] US 2011282223 A1 20111117 - SANO YOSHIHIKO [JP], et al
- [A] DE 4007932 A1 19910919 - KNF NEUBERGER GMBH [DE]
- [A] US 5699717 A 19971223 - RIEDLINGER HEINZ [DE]
- See references of WO 2015108686A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

**US 2015198154 A1 20150716**; CA 2936759 A1 20150723; EP 3094864 A1 20161123; EP 3094864 A4 20171108; WO 2015108686 A1 20150723

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**US 201414580639 A 20141223**; CA 2936759 A 20141224; EP 14878507 A 20141224; US 2014072320 W 20141224