

Title (en)

MEMBRANE PUMP AND METHOD FOR ADJUSTING SAME

Title (de)

MEMBRANPUMPE SOWIE VERFAHREN ZUM EINSTELLEN EINER SOLCHEN

Title (fr)

POMPE À MEMBRANE ET PROCÉDÉ POUR AJUSTER UNE TELLE POMPE

Publication

EP 2609331 A2 20130703 (DE)

Application

EP 11745538 A 20110815

Priority

- DE 102010039831 A 20100826
- EP 2011064044 W 20110815

Abstract (en)

[origin: CA2808373A1] The invention relates to a membrane pump having a delivery chamber, a pressure connection, and a suction connection, wherein the pressure and suction connections are connected to the delivery chamber, a hydraulic chamber, wherein the delivery chamber and the hydraulic chamber are separated from each other by means of a membrane, wherein a pulsing working fluid pressure can be applied to the hydraulic chamber that can be filled with a working fluid, whereby the membrane is displaced between a first position in which the delivery chamber comprises a lesser volume and a second position in which the delivery chamber comprises a greater volume, wherein the hydraulic chamber is connected to a working fluid reservoir by means of a leak extension valve, wherein the membrane is a spring element having a first spring constant designed such that a first predetermined force acts on the membrane in the direction of the second position. In order to provide a membrane pump and a method for adjusting same, by which the indicated problems are reduced or even completely eliminated, the invention proposes that the spring element can be interchanged by a different spring element designed such that said element exerts a second predetermined force on the membrane in the direction of the second position, or that the force exerted by the spring element on the membrane in the direction of the second position can be adjusted.

IPC 8 full level

F04B 43/00 (2006.01); **F04B 43/067** (2006.01)

CPC (source: EP KR US)

F04B 43/0081 (2013.01 - EP KR US); **F04B 43/067** (2013.01 - EP KR US); **F04B 45/033** (2013.01 - US); **F04B 53/10** (2013.01 - KR);
F04B 53/14 (2013.01 - KR); **F05B 2210/11** (2013.01 - KR); **Y10S 417/00** (2013.01 - KR)

Citation (search report)

See references of WO 2012025422A2

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)

DE 102010039831 A1 20120301; DE 102010039831 B4 20220203; BR 112013004111 A2 20160628; CA 2808373 A1 20120301;
CA 2808373 C 20180306; CN 103210216 A 20130717; CN 103210216 B 20160511; EP 2609331 A2 20130703; JP 2013536363 A 20130919;
KR 20130137151 A 20131216; RU 2013113175 A 20141010; US 2014147292 A1 20140529; US 2015004005 A9 20150101;
WO 2012025422 A2 20120301; WO 2012025422 A3 20120719

DOCDB simple family (application)

DE 102010039831 A 20100826; BR 112013004111 A 20110815; CA 2808373 A 20110815; CN 201180040470 A 20110815;
EP 11745538 A 20110815; EP 2011064044 W 20110815; JP 2013525246 A 20110815; KR 20137006052 A 20110815;
RU 2013113175 A 20110815; US 201113818114 A 20110815