Title (en)

ROTARY POSITIVE DISPLACEMENT PUMP AND METHOD OF REGULATING ITS DISPLACEMENT

Title (de)

ROTATIONSVERDRÄNGERPUMPE UND VERFAHREN ZUR STEUERUNG VON DEREN VERDRÄNGUNG

Title (fr)

POMPE VOLUMÉTRIQUE ROTATIVE ET MÉTHODE DE RÉGULATION DE SON DÉBIT VOLUMÉTRIQUE

Publication

EP 2795130 B1 20160316 (EN)

Application

EP 12815823 A 20121211

Priority

- IT TO20111188 A 20111222
- IB 2012057167 W 20121211

Abstract (en)

[origin: WO2013093711A1] A rotary positive displacement pump for fluids, in particular for the lubrication oil of a motor vehicle engine (30), has a displacement that can be regulated by means of the translation of a stator ring (4) surrounding the rotor (5) of the pump (1) with an eccentricity depending on the position taken by the same ring due to the translation. The translation is guided by guiding fins (25) sliding in contact with a surface of a guiding chamber (26), communicating with the delivery side of the pump (1), thanks to the action of the fluid under pressure introduced into the same chamber and acting on the fins (25). The contact zone (28) is such that a homogeneous contact pressure distribution is ensured as the operating conditions of the pump (1) and, consequently, the position of the stator ring (4), vary. The invention also concerns a method of regulating the displacement of the pump (1) and a lubrication system for a motor vehicle engine, in which system the pump (1) is used.

IPC 8 full level

F04C 14/22 (2006.01)

CPC (source: EP US)

F04C 2/321 (2013.01 - US); **F04C 2/3442** (2013.01 - US); **F04C 13/002** (2013.01 - US); **F04C 14/223** (2013.01 - EP US); **F04C 15/008** (2013.01 - US); **F04C 15/0088** (2013.01 - US); F04C 2250/30 (2013.01 - EP US); F04C 2270/18 (2013.01 - US)

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)

WO 2013093711 A1 20130627; EP 2795130 A1 20141029; EP 2795130 B1 20160316; IT TO20111188 A1 20130623; US 2015292502 A1 20151015

DOCDB simple family (application)

IB 2012057167 W 20121211; EP 12815823 A 20121211; IT TO20111188 A 20111222; US 201214367710 A 20121211