

Title (en)  
PUMP WITH AN ELASTIC MEMBRANE AND HYDRAULIC CONTROL

Title (de)  
PUMPE MIT EINER ELASTISCHEN MEMBRAN UND HYDRAULISCHEN STEUERUNG

Title (fr)  
POMPE A MEMBRANE ELASTIQUE A COMMANDE HYDRAULIQUE

Publication  
**EP 2394056 B1 20181219 (FR)**

Application  
**EP 10707069 A 20100203**

Priority  
• FR 2010000081 W 20100203  
• FR 0900440 A 20090203

Abstract (en)  
[origin: WO2010089476A1] The invention relates to a pump with a membrane and hydraulic control, comprising a pumping chamber (3) provided between a head and a pump body (9), with a mobile wall consisting of a membrane that is elastically deformable from the rest shape thereof corresponding to the state thereof at the end of the suction stroke of the pump, an intermediate hydraulic chamber (8) having a constant space provided in the pump body (9) and comprising a piston (10) capable of a reciprocating movement inside said intermediate chamber (8), a leak compensation space of the intermediate chamber (8) connected to the latter by a feedback channel (28,21,18) via a free load-free one-way valve (13) ensuring a flow towards the working chamber (8), characterised in that the one-way valve (13) and at least a portion (34) of the compensation space are contained in a body (22, 31) added onto the pump body (9) at the highest point of the intermediate hydraulic chamber (8) in the working position of the pump.

IPC 8 full level  
**F04B 43/067** (2006.01); **F04B 43/073** (2006.01)

CPC (source: EP US)  
**F04B 43/0081** (2013.01 - EP US); **F04B 43/009** (2013.01 - EP US); **F04B 43/067** (2013.01 - EP US); **F04B 43/073** (2013.01 - EP US)

Cited by  
EP2949936A1; US9856870B2

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

DOCDB simple family (publication)  
**FR 2941748 A1 20100806; FR 2941748 B1 20110819**; CA 2750861 A1 20100812; CA 2750861 C 20130806; CN 102301139 A 20111228; CN 102301139 B 20150527; EP 2394056 A1 20111214; EP 2394056 B1 20181219; FR 2941749 A1 20100806; JP 2012516962 A 20120726; JP 5416226 B2 20140212; RU 2011136676 A 20130310; RU 2505707 C2 20140127; US 2011280747 A1 20111117; US 8888469 B2 20141118; WO 2010089476 A1 20100812

DOCDB simple family (application)  
**FR 1000446 A 20100203**; CA 2750861 A 20100203; CN 201080006408 A 20100203; EP 10707069 A 20100203; FR 0900440 A 20090203; FR 2010000081 W 20100203; JP 2011546906 A 20100203; RU 2011136676 A 20100203; US 201013145254 A 20100203