

Title (en)
Bellows pump

Title (de)
Balgpumpe

Title (fr)
Pompe à soufflet

Publication
EP 2706235 A1 20140312 (EN)

Application
EP 13004383 A 20130909

Priority
JP 2012198289 A 20120910

Abstract (en)
A bellows pump including in its pump case (5) a pair of plastic bellows (6) that expand and contract to alternatively execute an output stroke that sends fluid out of pump chambers (7) defined by the bellows and a suction stroke that supplies fluid to the pump chambers. Metal actuation plates (10) are provided in the pump case so as to be movable in the axial direction. Said actuation plates are fixedly connected to the bottom walls (6a) of the bellows in peripheral portions thereof. Sealed spaces (22) are provided between said opposed end faces. Said sealed spaces, which are sealed by O-rings (15), are filled with an incompressible fluid, such as oil.

IPC 8 full level
F04B 43/08 (2006.01); **F04B 43/113** (2006.01); **F04B 45/02** (2006.01)

CPC (source: EP KR US)
F04B 43/0036 (2013.01 - US); **F04B 43/08** (2013.01 - KR); **F04B 43/084** (2013.01 - EP US); **F04B 43/10** (2013.01 - KR); **F04B 43/1136** (2013.01 - EP US); **F04B 45/02** (2013.01 - EP KR US); **F04B 45/022** (2013.01 - EP US)

Citation (applicant)
• JP 2002174180 A 20020621 - IWAKI CO LTD
• JP 2012122380 A 20120628 - NIPPON PILLAR PACKING

Citation (search report)
• [XA] EP 2402610 A1 20120104 - NIPPON PILLAR PACKING [JP]
• [AD] JP 2002174180 A 20020621 - IWAKI CO LTD
• [AD] JP 2012122380 A 20120628 - NIPPON PILLAR PACKING

Cited by
US10156229B2; TWI626372B

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 2706235 A1 20140312; CN 103671041 A 20140326; JP 2014051950 A 20140320; KR 20140034070 A 20140319; TW 201410976 A 20140316; US 2014072465 A1 20140313

DOCDB simple family (application)
EP 13004383 A 20130909; CN 201310403659 A 20130906; JP 2012198289 A 20120910; KR 20130106575 A 20130905; TW 102128069 A 20130806; US 201314021679 A 20130909