

Title (en)
A ROTARY DIAPHRAGM POSITIVE DISPLACEMENT PUMP

Title (de)
VERDRÄNGUNGSPUMPE MIT ROTIERENDER MEMBRAN

Title (fr)
POMPE À DÉPLACEMENT POSITIF À DIAPHRAGME ROTATIF

Publication
EP 3655656 B1 20230322 (EN)

Application
EP 18745673 A 20180711

Priority
• GB 201711608 A 20170719
• GB 2018051969 W 20180711

Abstract (en)
[origin: GB2564680A] A rotary pump comprising a housing 1 defining an annular chamber with inlet (12, figure 1) and outlet ports (11). A flexible annular diaphragm 3 forms one side of the chamber spaced opposite an annular wall on the housing and has two opposed circular ends and is sealed at its edges to the housing. A partition (13) extends between the inlet and outlet ports to the diaphragm. The diaphragm is configured to be pressed precessively against the housing, driven by a rotating means, which includes bearing 5 and shaft 7, to force fluid around the chamber. There is a reinforcement ring 4 surrounding the bearing and connected to a central region of the diaphragm and a pair of annular end caps 9, one in each end of the diaphragm. Preferably a second end of the annular end caps is formed with a groove into which the reinforcement ring can move in use.

IPC 8 full level
F04B 43/14 (2006.01); **F04B 43/00** (2006.01); **F04C 5/00** (2006.01)

CPC (source: EP GB)
F04B 43/0054 (2013.01 - EP GB); **F04B 43/0072** (2013.01 - EP GB); **F04B 43/12** (2013.01 - GB); **F04B 43/14** (2013.01 - EP GB); **F04C 2/04** (2013.01 - GB); **F04C 5/00** (2013.01 - GB)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR 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)
GB 201711608 D0 20170830; **GB 2564680 A 20190123**; **GB 2564680 B 20190821**; DK 3655656 T3 20230501; EP 3655656 A1 20200527; EP 3655656 B1 20230322; ES 2941464 T3 20230523; WO 2019016520 A1 20190124

DOCDB simple family (application)
GB 201711608 A 20170719; DK 18745673 T 20180711; EP 18745673 A 20180711; ES 18745673 T 20180711; GB 2018051969 W 20180711