

Title (en)

DIAPHRAGM FOR A DIAPHRAGM PUMP

Title (de)

MEMBRANE FÜR EINE MEMBRANPUMPE

Title (fr)

MEMBRANE POUR UNE POMPE A MEMBRANE

Publication

EP 0910745 B1 20021127 (DE)

Application

EP 97938821 A 19970711

Priority

- DE 29612117 U 19960711
- EP 9703698 W 19970711

Abstract (en)

[origin: WO9802661A1] The invention relates to a diaphragm for a diaphragm pump which has a diaphragm body (2) consisting of resilient material, comprising a substantially annular outer region of a relatively low thickness and an adjacent central region which becomes thicker radially towards the centre, and a solid moulded core (3) cured in the central region of the diaphragm body (2) and for connection to a pump drive part, wherein (a) the outer diameter (F) of the moulded core (2) is less than a third of the outer diameter (D) of the diaphragm body (1), and (b) the material thickness (L) of the diaphragm body (1) in the central region above the moulded core is between 5 % and 20 % of the outer diameter (D) of the diaphragm. Said diaphragm can be used to avoid, on both sides of the top dead centre region, undesirable deformation of the diaphragm (1) surface facing the pump chamber (5) during a tilt transmitted from the drive rods to the moulded core (3). Said diaphragm (1) can therefore be used to produce a diaphragm pump with a low clearance volume and a large compression ratio.

IPC 1-7

F04B 43/02

IPC 8 full level

F04B 43/02 (2006.01); **F04B 43/00** (2006.01)

CPC (source: EP US)

F04B 43/0054 (2013.01 - EP US)

Cited by

EP2607699A4; US9976546B2

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

DE 29612117 U1 19960912; DE 59708833 D1 20030109; EP 0910745 A1 19990428; EP 0910745 B1 20021127; JP 2000517392 A 20001226; US 6055898 A 20000502; WO 9802661 A1 19980122

DOCDB simple family (application)

DE 29612117 U 19960711; DE 59708833 T 19970711; EP 9703698 W 19970711; EP 97938821 A 19970711; JP 50560198 A 19970711; US 19470398 A 19981218