

Title (en)
MEMBRANE PUMP

Title (de)
MEMBRANPUMPE

Title (fr)
POMPE A MEMBRANE

Publication
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Application
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Abstract (en)
[origin: DE19647882A1] A membrane pump (1) has a crank drive (5) whose connecting rod (6) is joined to an elastic membrane (7) with a membrane top side (13) fitted to a compression chamber (10) at the top dead centre of the crank drive (13) and with a central undercut opening at the bottom side (14) of the membrane opposite to the compression chamber (10). A fitting fastening part (15) joined to the connecting rod is inserted into the fastening opening. A dimensionally stable membrane support (17) fittingly supports the membrane (7) by its bottom side (14) at least in one central area. The disclosed membrane pump (1) is characterised in that the membrane support (17) lies in a top dead centre on the membrane bottom side (14), without squeezing it and substantially over its whole surface. A partial area of the support (17) fitted to the pumping chamber wall (9), taking into consideration the variation in cross-section of the membrane, follows the central area of the support (17) designed as a centering aid. The diameter of the fastening part (15) is smaller than one third of the cross-section of the membrane fitted to the pumping chamber wall (9). The membrane (7) of the disclosed membrane pump (1) is characterised by a large elastic zone (A) which neutralises undesirable stresses within the membrane and enables a membrane pump (1) to be obtained with a relatively large displacement volume.

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