

Title (en)

Diaphragm failure detection device for a diaphragm pump.

Title (de)

Anzeigevorrichtung für den Membranbruch einer Membranpumpe.

Title (fr)

Dispositif de détection de rupture d'une membrane de pompe à membrane.

Publication

EP 0321338 A1 19890621 (FR)

Application

EP 88403175 A 19881214

Priority

FR 8717636 A 19871217

Abstract (en)

[origin: JPH01200078A] PURPOSE: To detect that a membrane of a membrane pump of which two membranes are clamped in the surrounding area of an annular space has broken in an assured manner by forming radial passages and connecting a device for detecting membrane breakage to the passage. CONSTITUTION: A pump body 3 formed by interposing two membranes 1, 2 between rear and front supporting grills 4, 5 and an annular spacer 6 interposed between the grills is clamped between a component element 7 defining a pump chamber 9 and a component element 8 defining a hydraulic chamber 10 for driving the pump. In this case, an interior groove 13 is formed in the annular spacer 6. The groove 13 is communicated with the interior space defined between the membranes 1, 2. The groove 13 is also communicated with an exterior duct via at least one radial passage 14 and connected to a means for detecting membrane breakage. The groove 13 is formed by two walls 13a, 13b converging to each other. The annular spacer 6 preferably has a bullet-shaped cross-section.

Abstract (fr)

La gorge (13) de détection d'un fluide entre les membranes (1,2), signe de la rupture de l'une d'elles, est profilée en ogive pour éviter l'extrusion des membranes sous l'effet de la pression de pompage.

IPC 1-7

F04B 43/00

IPC 8 full level

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

CPC (source: EP US)

F04B 43/009 (2013.01 - EP US)

Citation (search report)

- [A] FR 2533636 A1 19840330 - MILTON ROY DOSAPRO [FR]
- [A] DE 1226740 B 19661013 - HOFER ANDREAS, et al
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EP1867900A1; CN103352839A; US7621296B2; WO9219866A1

Designated contracting state (EPC)

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EP 0321338 A1 19890621; **EP 0321338 B1 19910227**; AT E61082 T1 19910315; CA 1284747 C 19910611; DE 321338 T1 19891116; DE 3861851 D1 19910404; ES 2009734 A4 19891016; ES 2009734 B3 19911016; FR 2624922 A1 19890623; FR 2624922 B1 19900427; GR 3001689 T3 19921123; GR 890300133 T1 19900119; JP H01200078 A 19890811; US 4881876 A 19891121

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