

Title (en)

Hydraulic diaphragm pump with prestressed diaphragm

Title (de)

Hydraulisch angetriebene Membranpumpe mit vorgespannter Membran

Title (fr)

Pompe à membrane hydraulique avec membrane précontrainte

Publication

EP 1291524 B1 20051130 (DE)

Application

EP 02018670 A 20020820

Priority

DE 10143978 A 20010907

Abstract (en)

[origin: EP1291524A2] The hydraulic membrane pump has a membrane (1) clamped at the edges between a pump body (2) and a pump cover (3), which separates the discharge zone (4) from the hydraulic zone (5). The membrane is tensed by a spring in the suction stroke direction. The hydraulic membrane drive has an oscillating displacement piston (6), which slides in the pump body between a supply zone (8) for the hydraulic fluid and the hydraulic zone. The spring tension on the membrane is sufficiently strong to apply pressure to the hydraulic fluid in the hydraulic zone, to build up an overpressure against the discharge zone.

IPC 1-7

F04B 45/06; **F04B 43/067**

IPC 8 full level

F04B 43/067 (2006.01); **F04B 45/06** (2006.01)

CPC (source: EP US)

F04B 43/067 (2013.01 - EP US)

Cited by

ITUB20151971A1; US11448205B2; JP2021522436A; AU2019255317B2; WO2017006255A1; WO2012025422A3; DE102010039831A1; WO2012025422A2; DE102010039831B4; WO2019204497A1

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EP 1291524 A2 20030312; **EP 1291524 A3 20040728**; **EP 1291524 B1 20051130**; AT E311536 T1 20051215; DE 10143978 A1 20030327; DE 10143978 B4 20050303; DE 50205092 D1 20060105; JP 2003097449 A 20030403; JP 4416149 B2 20100217; US 2003049145 A1 20030313; US 6884045 B2 20050426

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