

Title (en)

Hydraulically driven membrane pump with limitation of the membrane movement

Title (de)

Hydraulisch angetriebene Membranpumpe mit Membranhubbegrenzung

Title (fr)

Pompe à membrane actionnée hydrauliquement avec limitation du mouvement de la membrane

Publication

EP 0547404 B1 19970205 (DE)

Application

EP 92119928 A 19921123

Priority

DE 4141670 A 19911217

Abstract (en)

[origin: JPH05240162A] PURPOSE: To limit diaphragm strokes precisely in two directions with simple means and dispense with hand operation for actuating a diaphragm pump. CONSTITUTION: A first control slide 19 of a leakage makeup device has t its diaphragm-side end a support plate 31 which together with the associated pump body face 10 of the diaphragm work chamber 9 forms a virtually gap-free mechanical support face 10, 10', 10" adapted to the natural diaphragm geometry. As distinguished therefrom the first control slide has at its piston-side end a second control slide 20 with a valve head 21 which in the pressure stroke end position of the diaphragm interrupts the hydraulic connection from a piston work chamber 5 to the diaphragm work chamber 9.

IPC 1-7

F04B 43/06

IPC 8 full level

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

CPC (source: EP US)

F04B 43/067 (2013.01 - EP US)

Cited by

CN102352831A; CN105209758A; CN114320847A; EP1801417A1; DE102013105072A1; WO2014184125A1; US9964105B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0547404 A1 19930623; **EP 0547404 B1 19970205**; DE 4141670 A1 19930701; DE 4141670 C2 19940929; DE 59208018 D1 19970320; JP H05240162 A 19930917; US 5246351 A 19930921

DOCDB simple family (application)

EP 92119928 A 19921123; DE 4141670 A 19911217; DE 59208018 T 19921123; JP 33695992 A 19921217; US 98283192 A 19921130