

Title (en)  
PISTON-DRIVEN DIAPHRAGM PUMP

Publication  
**EP 0085725 B1 19841128 (DE)**

Application  
**EP 82100833 A 19820205**

Priority  
EP 82100833 A 19820205

Abstract (en)  
[origin: US4465438A] A piston diaphragm pump includes a support plate, disposed on the side of the piston work chamber, for the diaphragm, which is held in a freely movable manner counter to the pressure of a plurality of springs engaging its circumference. A control push rod under the pressure of another spring, counter to the support plate, engage the circumferential area of the support plate and has a conical recess on its circumference, along which slides a displaceable locking member for a refill valve for the hydraulic fluid during the movement of the control push rod. The refill valve opens only when the support plate displaces the control push rod counter to the pressure of its spring as a consequence of a lack of hydraulic fluid in the pump.

IPC 1-7  
**F04B 43/06**

IPC 8 full level  
**F04B 43/067** (2006.01)

CPC (source: EP US)  
**F04B 43/067** (2013.01 - EP US)

Cited by  
EP2108838A1; EP0233771A3; DE19826610A1; DE2843054A1; EP0386754A1; DE3907735A1; EP1898093A1; DE102006062960B3; US6554578B1; DE202007019423U1; US8360750B2

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0085725 A1 19830817; EP 0085725 B1 19841128**; AT E10533 T1 19841215; DE 3261319 D1 19850110; JP S58138286 A 19830817; JP S6358267 B2 19881115; US 4465438 A 19840814

DOCDB simple family (application)  
**EP 82100833 A 19820205**; AT 82100833 T 19820205; DE 3261319 T 19820205; JP 5896282 A 19820408; US 37757382 A 19820512