

Title (en)  
Piston pump

Title (de)  
Kolbenpumpe

Title (fr)  
Pompe à piston

Publication  
**EP 0882873 B1 20030312 (DE)**

Application  
**EP 97108943 A 19970603**

Priority  
EP 97108943 A 19970603

Abstract (en)  
[origin: EP0882873A1] The piston pump assembly has an inlet valve (6a) which, in the closed setting, is closer to the working zone (4) than when in the open position. The valve surfaces towards the working zone (4) at the entry (6a) and/or outlet (6b) valves move into the inner surface of the working zone (4) when they are closed, without a shoulder.

IPC 1-7  
**F01L 3/20**; F01L 3/08; F04B 7/00; F04B 15/02

IPC 8 full level  
**F01L 3/08** (2006.01); **F01L 3/20** (2006.01); **F04B 7/00** (2006.01); **F04B 15/02** (2006.01); **F04B 53/10** (2006.01); **F04B 53/16** (2006.01)

CPC (source: EP US)  
**F01L 3/08** (2013.01 - EP US); **F01L 3/20** (2013.01 - EP US); **F04B 7/00** (2013.01 - EP US); **F04B 15/02** (2013.01 - EP US);  
**F04B 53/1097** (2013.01 - EP US); **F04B 53/164** (2013.01 - EP US); **F01L 2003/258** (2013.01 - EP US); **Y10T 137/4259** (2015.04 - EP US)

Cited by  
DE102010000534B4; WO2008061523A3

Designated contracting state (EPC)  
CH DE FR GB IT LI

DOCDB simple family (publication)  
**EP 0882873 A1 19981209**; **EP 0882873 B1 20030312**; DE 59709502 D1 20030417; JP H1150956 A 19990223; US 6168398 B1 20010102

DOCDB simple family (application)  
**EP 97108943 A 19970603**; DE 59709502 T 19970603; JP 15412198 A 19980603; US 8721798 A 19980529