

Title (en)

High-pressure plunger pump, working preferably at pressures above 2000 bars

Title (de)

Hochdruckplungerpumpe, vorzugsweise für Arbeitsdrücke oberhalb 2.000 bar

Title (fr)

Pompe haute-pressure à plongeur, travaillant de préférence à des pressions supérieures à 2000 bars

Publication

**EP 0789147 A3 19980902 (DE)**

Application

**EP 97100707 A 19970117**

Priority

DE 19604132 A 19960206

Abstract (en)

[origin: EP0789147A2] A valve seating ring (9) with seats for the pressure valve (11) and suction valve is located in the space between the pump head (2) and inner body (3) containing the working chamber. A suction valve body (12) equipped with a concentric relief orifice and an associated spring (14) are located in a cylindrical stepped recess in the inner body adjacent to the valve seating ring. The pump head is screwed to the inner body. There may be a graduation for the spring and a further graduation for the suction valve body, as well as a graduation for a projection (26) of the valve seating ring for a key-lock connection of the valve seat ring with the inner body.

IPC 1-7

**F04B 53/12**; **F04B 53/16**

IPC 8 full level

**F04B 53/00** (2006.01); **F04B 53/10** (2006.01); **F04B 53/12** (2006.01); **F04B 53/16** (2006.01)

CPC (source: EP US)

**F04B 53/007** (2013.01 - EP US); **F04B 53/1032** (2013.01 - EP US); **F04B 53/1087** (2013.01 - EP US); **F04B 53/162** (2013.01 - EP US)

Citation (search report)

- [X] EP 0512594 A1 19921111 - PUMPTech NV [BE], et al
- [XY] US 4878815 A 19891107 - STACHOWIAK J EDWARD [US]
- [Y] DE 4038613 A1 19920611 - WOMA MAASBERG CO GMBH W [DE]
- [Y] EP 0391487 A2 19901010 - FLOW INT CORP [US]
- [Y] DE 3404520 A1 19850814 - URACA PUMPEN [DE]
- [A] WO 9420754 A1 19940915 - SAURWEIN ALBERT C [US]

Designated contracting state (EPC)

CH DE DK ES FR GB IT LI NL SE

DOCDB simple family (publication)

**DE 19604132 A1 19970807**; **DE 19604132 C2 20000413**; AU 1240097 A 19970814; AU 705265 B2 19990520; DE 59705122 D1 20011206; DK 0789147 T3 20020218; EP 0789147 A2 19970813; EP 0789147 A3 19980902; EP 0789147 B1 20011031; ES 2166476 T3 20020416; JP 3954143 B2 20070808; JP H09228965 A 19970902; US 5848880 A 19981215

DOCDB simple family (application)

**DE 19604132 A 19960206**; AU 1240097 A 19970130; DE 59705122 T 19970117; DK 97100707 T 19970117; EP 97100707 A 19970117; ES 97100707 T 19970117; JP 2262797 A 19970205; US 79039097 A 19970129