

Title (en)

PUMP, ESPECIALLY FOR A FUEL INJECTION DEVICE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

PUMPE, INSBESONDERE FÜR EINE KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)

POMPE, NOTAMMENT POUR UN SYSTEME D'INJECTION DE CARBURANT DESTINE A UN MOTEUR A COMBUSTION INTERNE

Publication

**EP 1537334 B1 20101013 (DE)**

Application

**EP 03739364 A 20030211**

Priority

- DE 0300383 W 20030211
- DE 10239728 A 20020829

Abstract (en)

[origin: WO2004022975A1] The invention relates to a pump comprising at least one pump element (14) which comprises a pump piston (24) which is tightly guided in a cylinder bore (26) of a housing part (10) and which defines a pump working chamber (26) in the cylinder bore (26) and which is driven in a stroke movement. The pump working chamber (26) is provided with a connection to a feeder channel (34) controlled by an inlet valve which opens into the pump working chamber (26) and a connection to a discharge channel (38) controlled by an outlet valve (30) which opens out of the pump working chamber (26). The inlet valve comprises a valve member (46) which co-operates with a valve seat (44) and which is impinged upon by a valve spring (48) in a closing direction in relation to the valve seat (44). The feeder channel (34) comprises a part which is embodied in the form of a first blind bore (42) which has a smaller diameter than that of the cylinder bore (26) and which is adjacent to the pump working chamber (30) in the cylinder bore (26) in the housing part (10). The valve seat is formed in the transition from the cylinder bore (26) to the first blind bore (42) and a second blind bore (50) leads into the first blind bore (42) as another part of the feeder chamber (34).

IPC 8 full level

**F04B 53/16** (2006.01); **F02M 55/00** (2006.01); **F02M 59/02** (2006.01); **F02M 59/44** (2006.01); **F02M 59/46** (2006.01); **F04B 1/04** (2006.01); **F04B 9/04** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP US)

**F02M 55/00** (2013.01 - EP US); **F02M 55/005** (2013.01 - EP US); **F02M 59/44** (2013.01 - EP US); **F04B 1/0452** (2013.01 - EP US); **F04B 53/16** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**DE 10239728 A1 20040311**; DE 50313186 D1 20101125; EP 1537334 A1 20050608; EP 1537334 B1 20101013; JP 2005537425 A 20051208; JP 4309840 B2 20090805; US 2005031478 A1 20050210; US 7210463 B2 20070501; WO 2004022975 A1 20040318

DOCDB simple family (application)

**DE 10239728 A 20020829**; DE 0300383 W 20030211; DE 50313186 T 20030211; EP 03739364 A 20030211; JP 2004533186 A 20030211; US 49395104 A 20040924