

Title (en)

HIGH PRESSURE PUMP, IN PARTICULAR FOR A FUEL INJECTION DEVICE IN AN INTERNAL COMBUSTION ENGINE

Title (de)

HOCHDRUCKPUMPE, INSBESONDERE FÜR EINE KRAFTSTOFFEINSPRITZEIN RICHTUNG EINER BRENNKRAFTMASCHINE

Title (fr)

POMPE HAUTE PRESSION, NOTAMMENT POUR UN DISPOSITIF D'INJECTION DE CARBURANT DANS UN MOTEUR A COMBUSTION INTERNE

Publication

**EP 1716332 A1 20061102 (DE)**

Application

**EP 05701509 A 20050113**

Priority

- EP 2005050126 W 20050113
- DE 102004006700 A 20040211
- DE 102004027825 A 20040608

Abstract (en)

[origin: WO2005078273A1] The invention concerns a high pressure pump comprising at least one pump component (16) wherein, upon the suction stroke of a pump piston (20), fuel from the fuel supply conduit (50) is sucked by an intake valve (30), the fuel being delivered by a delivery valve (32) upon the delivery stroke of the pump piston (20). The intake valve (30) comprises a component (44) whereof one sealing surface (48) inclined towards its longitudinal axis (45) co-operates with a valve seat (42c) arranged in a valve cage (40). Said valve component (44) enables, in an open state, when the sealing surface (48) of the valve component (44) is released from the valve seat (42c), a flow cross-section between the fuel supply conduit (50) and the pump working space (24) to be cleared between said valve component (44) and the valve cage (40). The valve component (44) being opened, a zone (52) provided with the smallest flow cross-section between the valve component (44) and the valve cage (40), in the direction of the flow circulating from the fuel supply conduit (50) towards the pump working space (24), is provided downstream of the flow and the sealing surface (48) of the valve component (44).

IPC 8 full level

**F02M 59/46** (2006.01); **F02M 59/36** (2006.01); **F04B 1/04** (2006.01); **F04B 53/10** (2006.01); **F16K 15/04** (2006.01); **F16K 15/06** (2006.01); **F02M 59/10** (2006.01)

CPC (source: EP KR)

**F02M 59/102** (2013.01 - KR); **F02M 59/366** (2013.01 - EP KR); **F02M 59/462** (2013.01 - EP KR); **F04B 1/0452** (2013.01 - EP KR); **F04B 53/10** (2013.01 - EP); **F04B 53/1002** (2013.01 - EP KR); **F16K 15/044** (2013.01 - EP KR); **F16K 15/063** (2013.01 - EP KR); **F02M 59/102** (2013.01 - EP)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2005078273 A1 20050825**; EP 1716332 A1 20061102; JP 2007501913 A 20070201; KR 20060127128 A 20061211

DOCDB simple family (application)

**EP 2005050126 W 20050113**; EP 05701509 A 20050113; JP 2006523020 A 20050113; KR 20067016092 A 20060810