

Title (en)

VALVE FOR CONTROLLING LIQUIDS, IN PARTICULAR A FUEL INJECTION VALVE

Title (de)

VENTIL ZUM STEUERN VON FLÜSSIGKEITEN, INSBESONDERE KRAFTSTOFFEINSPIRITZVENTIL

Title (fr)

SOUPAPE SERVANT À COMMANDER LE PASSAGE DE LIQUIDES, NOTAMMENT SOUPAPE D'INJECTION DE CARBURANT

Publication

**EP 1709314 A2 20061011 (DE)**

Application

**EP 04802789 A 20041122**

Priority

- DE 2004002578 W 20041122
- DE 102004002083 A 20040115

Abstract (en)

[origin: WO2005068816A2] The invention relates to a valve (1) which is used to control liquids. Said valve comprises a valve body (2) and a valve needle (3) which is disposed in such a manner that it can be displaced in a longitudinal manner in the valve body (2). The valve needle (3) co-operates with a sealing seat (4) of the valve body (2) in such a manner that when the sealing seat (4) is closed, a fuel supply area (5) is separated from a fuel chamber (6), whereby both the area and the chamber are defined by the valve body (2) and the valve needle (3). The valve needle (3) is embodied in an area (8) which is connected to the fuel chamber (6), said area comprising a pressure compensation surface (9) which, when the sealing seat (4) is open, is impinged upon by fuel guided into the fuel chamber (6) at high pressure in such a manner that force acting in the region of the pressure compensation surface (9) engages in a closing direction of the sealing seat (4). Also, a pressure compensation piston (10) is provided in the region of the pressure compensation surface (9). Force acting upon the pressure compensation surface (9) in a closing direction of the sealing seat (4), supports the surface (11) of said piston, which is orientated towards the fuel chamber.

IPC 8 full level

**F02M 1/00** (2006.01); **F02M 45/08** (2006.01); **F02M 61/18** (2006.01); **F02M 61/20** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

**F02M 45/086** (2013.01); **F02M 61/18** (2013.01); **F02M 2200/46** (2013.01)

Citation (search report)

See references of WO 2005068816A2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**DE 102004002083 A1 20050804**; EP 1709314 A2 20061011; WO 2005068816 A2 20050728; WO 2005068816 A3 20070301

DOCDB simple family (application)

**DE 102004002083 A 20040115**; DE 2004002578 W 20041122; EP 04802789 A 20041122