

Title (en)

HIGH-PRESSURE PUMP FOR A FUEL INJECTION DEVICE OF AN INTERNAL COMBUSTION ENGINE

Title (de)

HOCHDRUCKPUMPE FÜR EINE KRAFTSTOFFEINSPRITZEINRICHTUNG EINER BRENNKRAFTMASCHINE

Title (fr)

POMPE HAUTE PRESSION POUR UN SYSTEME D'INJECTION DE CARBURANT D'UN MOTEUR A COMBUSTION INTERNE

Publication

EP 1784571 B1 20081210 (DE)

Application

EP 05760887 A 20050705

Priority

- EP 2005053183 W 20050705
- DE 102004041764 A 20040828

Abstract (en)

[origin: US7571713B2] The high-pressure pump has at least one pump element with a pump piston driven in a reciprocating motion and guided displaceably in a cylinder bore of a pump housing part which piston defines a pump work chamber that can be filled with fuel from a fuel inlet via a suction valve in the intake stroke. The suction valve has a pistonlike valve member which has a cylindrical shaft and a head of larger cross section at least the shaft is guided displaceably in a guide bore of a valve housing. The head of the valve member is also guided displaceably in a bore of the valve housing, via guide portions embodied on the valve member and spaced apart from one another in the circumferential direction; between the guide portions, flowthrough portions of reduced cross section compared to the guide portions provide for fuel flow out of the fuel inlet into the pump work chamber.

IPC 8 full level

F04B 1/04 (2006.01)

CPC (source: EP US)

F02M 59/464 (2013.01 - EP US); **F02M 63/0071** (2013.01 - EP); **F04B 1/0448** (2013.01 - EP US)

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 LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

US 2007251499 A1 20071101; **US 7571713 B2 20090811**; AT E417200 T1 20081215; CN 100575700 C 20091230; CN 101010508 A 20070801; DE 102004041764 A1 20060302; DE 502005006224 D1 20090122; EP 1784571 A1 20070516; EP 1784571 B1 20081210; JP 2008511787 A 20080417; JP 4571980 B2 20101027; WO 2006024569 A1 20060309

DOCDB simple family (application)

US 66045405 A 20050705; AT 05760887 T 20050705; CN 200580029308 A 20050705; DE 102004041764 A 20040828; DE 502005006224 T 20050705; EP 05760887 A 20050705; EP 2005053183 W 20050705; JP 2007528801 A 20050705