

Title (en)

FUEL INJECTION PUMP FOR INTERNAL COMBUSTION ENGINES, ESPECIALLY DIESEL ENGINES

Title (de)

KRAFTSTOFFEINSPRITZPUMPE FÜR BRENNKRAFTMASCHINEN, INSbesondere DIESELMOTOREN

Title (fr)

POMPE D'INJECTION DE CARBURANT DE MOTEURS A COMBUSTION INTERNE, NOTAMMENT DE MOTEURS DIESEL

Publication

EP 1387944 B1 20061227 (DE)

Application

EP 01998730 A 20011116

Priority

- DE 0104320 W 20011116
- DE 10059425 A 20001130

Abstract (en)

[origin: WO0244549A2] The invention relates to a fuel injection pump for internal combustion engines, comprising a pressure limiting valve. The fuel injection pump has a valve support (10), a high pressure connection (inlet bore 18), a return flow connection (outlet bore 22, 22a, 22b, 44, 45), a valve seat (20) which is turned towards said inlet bore, an axially displaceable valve piston (15, 43) and a valve spring (25) which acts on the valve piston in the direction of the valve seat. The invention is mainly characterised in that the pressure limiting valve is integrated directly in the fuel injection pump and is sealed in relation to the pump body on the high and low pressure sides (37 or 38, 39). These measures reduce the construction space required for a fuel injection pump of this type and eliminate the need for special return lines.

IPC 8 full level

F02M 59/46 (2006.01); **F02M 63/02** (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP KR US)

F02M 59/46 (2013.01 - EP KR US); **F02M 63/005** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 0244549 A2 20020606; **WO 0244549 A3 20020815**; DE 10059425 A1 20020606; DE 50111754 D1 20070208; EP 1387944 A2 20040211; EP 1387944 B1 20061227; JP 2004514832 A 20040520; KR 20020069266 A 20020829; US 2003116122 A1 20030626

DOCDB simple family (application)

DE 0104320 W 20011116; DE 10059425 A 20001130; DE 50111754 T 20011116; EP 01998730 A 20011116; JP 2002546064 A 20011116; KR 20027009469 A 20020724; US 18162402 A 20020930