

Title (en)

FUEL INJECTION DEVICE FOR INTERNAL COMBUSTION ENGINES

Title (de)

KRAFTSTOFFEINSPRITZVORRICHTUNG FÜR BRENNKRAFTMASCHINEN

Title (fr)

DISPOSITIF D'INJECTION DE CARBURANT POUR MOTEURS A COMBUSTION INTERNE

Publication

**EP 1290340 A1 20030312 (DE)**

Application

**EP 01949256 A 20010612**

Priority

- DE 0102181 W 20010612
- DE 10029629 A 20000615

Abstract (en)

[origin: WO0196734A1] A fuel injection device (1) for internal combustion engines with an injection nozzle, which may be supplied with fuel from a high pressure fuel source (8) and an operating element (9), which opens and closes the above, dependent on the pressure in a control chamber (6) is disclosed. A high pressure line (7) opens into the control chamber (6) and a drain channel (10) leads away from the control chamber (6), which may be closed by the sealing element (13) of a valve body (3). A high pressure feed (19, 20, 21, 22) into a nozzle chamber may be sealed by a first valve seat (4) of the valve body (3), whereby the valve body (3) may be displaced along a defined stroke by means of an actuator (2). Depending on the above the sealing element (13) may be displaced between a closed position and an open position which discharges the control chamber (6) and permits an injection.

IPC 1-7

**F02M 63/00**; **F02M 59/46**; **F02M 47/02**

IPC 8 full level

**F02M 45/00** (2006.01); **F02M 45/02** (2006.01); **F02M 47/02** (2006.01); **F02M 51/00** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 61/10** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)

**F02M 47/027** (2013.01 - EP US); **F02M 63/0007** (2013.01 - EP US); **F02M 63/0026** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 0196734 A1 20011220**; DE 10029629 A1 20020103; EP 1290340 A1 20030312; HU P0202351 A2 20021128; JP 2004503710 A 20040205; US 2002179730 A1 20021205

DOCDB simple family (application)

**DE 0102181 W 20010612**; DE 10029629 A 20000615; EP 01949256 A 20010612; HU P0202351 A 20010612; JP 2002510829 A 20010612; US 4967802 A 20020426