

Title (en)

INJECTOR FOR INTERNAL COMBUSTION ENGINES

Title (de)

EINSPRITZDÜSE FÜR BRENNKRAFTMASCHINEN

Title (fr)

INJECTEUR POUR MOTEURS A COMBUSTION INTERNE

Publication

EP 1636484 B1 20070912 (DE)

Application

EP 04729036 A 20040423

Priority

- DE 2004000848 W 20040423
- DE 10326046 A 20030610

Abstract (en)

[origin: WO2004111433A1] The invention relates to an injector (1) for an internal combustion engine, particularly in a motor vehicle, comprising a nozzle body (2) having at least one injection hole (3), in addition to an injector needle (5) that is guided in a needle guide (6), by means of which the injection of fuel through said injection hole (3) can be controlled. The invention aims at providing a particularly simple construction of said injector (1). This is achieved in that a control piston (18) drivingly coupled to an actuator (19) has a first control surface (21), an injector needle (5) has a compensation surface (16), which is hydraulically coupled to the first control surface (21) by means of a hydraulic path (22) and the first control surface (21) can be hydraulically coupled to a feed line (9) by means of a second hydraulic path (29), said feed line delivering fuel at high pressure to the injection hole (3).

IPC 8 full level

F02M 47/02 (2006.01); **F02M 47/00** (2006.01); **F02M 47/04** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 61/20** (2006.01);
F02M 63/00 (2006.01)

CPC (source: EP KR US)

F02M 51/0603 (2013.01 - EP KR US); **F02M 61/205** (2013.01 - EP KR US); **F02M 2200/21** (2013.01 - KR); **F02M 2200/703** (2013.01 - EP US);
F02M 2200/704 (2013.01 - EP KR US); **F02M 2200/705** (2013.01 - EP KR US); **F02M 2200/706** (2013.01 - EP KR US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

DE 10326046 A1 20041230; DE 502004004964 D1 20071025; EP 1636484 A1 20060322; EP 1636484 B1 20070912;
JP 2006514216 A 20060427; KR 20060021356 A 20060307; US 2006032940 A1 20060216; WO 2004111433 A1 20041223

DOCDB simple family (application)

DE 10326046 A 20030610; DE 2004000848 W 20040423; DE 502004004964 T 20040423; EP 04729036 A 20040423;
JP 2005518185 A 20040423; KR 20057023651 A 20051209; US 53803205 A 20050608