

Title (en)

FUEL INJECTION DEVICE FOR FUEL INTERNAL COMBUSTION ENGINES

Title (de)

KRAFTSTOFFEINSPRITZVORRICHTUNG FÜR BRENNKRAFTMASCHINEN

Title (fr)

DISPOSITIF D'INJECTION DE CARBURANT POUR MOTEURS A COMBUSTION INTERNE

Publication

EP 1210513 A1 20020605 (DE)

Application

EP 00958258 A 20000817

Priority

- DE 0002782 W 20000817
- DE 19939450 A 19990820

Abstract (en)

[origin: DE19939450A1] Disclosed is a fuel-injection device for internal combustion engines, whereby a fuel-injection valve (9) has a push rod (21) actuated by an injection valve member (14). Said push rod delimits a control space (25) which is constantly supplied with high-pressure fuel and which can be discharged via a control valve (43) and a discharge canal (29) into a discharge chamber (32). The control valve (43) has a valve member (42, 421, 422) which is actuated by a piezo system (45) whereby the valve member (42, 421, 422) together with the edge of a seat (40) forms a first sealing seat (41, 411, 522) with a flat seat.

IPC 1-7

F02M 47/02

IPC 8 full level

F02M 45/04 (2006.01); **F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 63/02** (2006.01)

CPC (source: EP KR)

F02M 45/02 (2013.01 - KR); **F02M 45/04** (2013.01 - EP); **F02M 47/027** (2013.01 - EP); **F02M 63/0026** (2013.01 - EP);
F02M 63/0225 (2013.01 - EP)

Citation (search report)

See references of WO 0114721A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

DE 19939450 A1 20010301; EP 1210513 A1 20020605; JP 2003507646 A 20030225; KR 20020029383 A 20020418; WO 0114721 A1 20010301

DOCDB simple family (application)

DE 19939450 A 19990820; DE 0002782 W 20000817; EP 00958258 A 20000817; JP 2001518570 A 20000817; KR 20027002130 A 20020219