

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1299638 A1 20030409 (DE)

Application
EP 01989419 A 20011215

Priority

- DE 0104751 W 20011215
- DE 10063259 A 20001219

Abstract (en)
[origin: WO0250427A1] The invention relates to a fuel injection valve (1), especially for the direct injection of fuel into the combustion chamber of a mixture-compressing, spark-ignited internal combustion engine. Said valve comprises an actuator (10), a valve needle (3), actuated by the actuator (10), for actuating a valve closing body (4) that forms a sealing seat together with a valve face (6), and a swirl plate (34) that has at least one swirl duct (36). An elastic membrane (37) is disposed on the inlet side of the swirl plate (34) in such a manner that a metering cross-section of the at least one swirl duct (36) can be varied depending on the fuel pressure prevailing in the fuel injection valve (1) during operation.

IPC 1-7
F02M 61/16; F02M 51/06

IPC 8 full level
F02M 51/08 (2006.01); **F02M 51/06** (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01)

CPC (source: EP US)
F02M 51/0671 (2013.01 - EP US); **F02M 61/162** (2013.01 - EP US); **F02M 61/1806** (2013.01 - EP US)

Citation (search report)
See references of WO 0250427A1

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 0250427 A1 20020627; DE 10063259 A1 20020711; DE 50102422 D1 20040701; EP 1299638 A1 20030409; EP 1299638 B1 20040526;
JP 2004516409 A 20040603; US 2005072864 A1 20050407

DOCDB simple family (application)
DE 0104751 W 20011215; DE 10063259 A 20001219; DE 50102422 T 20011215; EP 01989419 A 20011215; JP 2002551288 A 20011215;
US 20486502 A 20021108