

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1346148 A1 20030924 (DE)

Application
EP 01989418 A 20011215

Priority
• DE 0104750 W 20011215
• DE 10063258 A 20001219

Abstract (en)
[origin: WO0250429A1] A fuel injection valve (1), in particular for the direct injection of fuel into the combustion chamber of a mixture-compressing, spark-ignited internal combustion engine, comprises an actuator (10), a valve needle (3), operated by said actuator (10), for operating a valve closing body (4), which, together with a valve seating surface (6) forms a sealing seat and a swirl disc (35), with at least one swirl channel (36). In a recess (43) of a nozzle body (2) in the fuel injection valve (1) an elastic metering ring (37) is arranged such that a metering diameter of the at least one swirl channel (36) may change dependent upon a fuel pressure existing in the fuel injection valve (1) during operation.

IPC 1-7
F02M 61/18; **F02M 61/16**; **F02M 51/06**

IPC 8 full level
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 61/18** (2013.01 - EP US)

Citation (search report)
See references of WO 0250429A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 0250429 A1 20020627; CZ 20022806 A3 20040414; DE 10063258 A1 20020711; EP 1346148 A1 20030924; JP 2004516411 A 20040603; US 2003168529 A1 20030911

DOCDB simple family (application)
DE 0104750 W 20011215; CZ 20022806 A 20011215; DE 10063258 A 20001219; EP 01989418 A 20011215; JP 2002551290 A 20011215; US 20411202 A 20021121