

Title (en)

FUEL INJECTION VALVE

Title (de)

BRENNSTOFFEINSPRITZVENTIL

Title (fr)

SOUPAPE D'INJECTION DE CARBURANT

Publication

EP 1392963 B1 20071010 (DE)

Application

EP 02737816 A 20020424

Priority

- DE 0201500 W 20020424
- DE 10123850 A 20010516

Abstract (en)

[origin: WO02092995A1] A fuel injection valve (1) comprising a magnet coil (10) which co-operates with an armature (20) which is impinged upon by a return spring (23), said armature forming, together with a valve needle (3), a valve part which is axially moveable. A valve sealing body (5) is provided on the valve needle (3), forming a tight seat with a valve seat body (5). A flange (14) penetrating the armature (20) via a recess (19) of said armature (20), connected to the valve needle (3) in a non-positive fit, is provided with at least one radial fuel channel (11) which is used to connect an inner area (29) of the fuel injection valve (1) to a recess (22) of the valve needle (3) when the fuel injection valve (1) is actuated.

IPC 8 full level

F02M 51/06 (2006.01); **F02M 51/08** (2006.01)

CPC (source: EP KR US)

F02M 51/0682 (2013.01 - EP US); **F02M 61/16** (2013.01 - KR)

Citation (examination)

US 5979803 A 19991109 - PETERS LESTER L [US], et al

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 02092995 A1 20021121; BR 0205280 A 20030701; BR 0205280 B1 20110125; CN 1308590 C 20070404; CN 1462339 A 20031217;
CZ 200367 A3 20040818; DE 10123850 A1 20021128; DE 10123850 C2 20030626; DE 50211051 D1 20071122; EP 1392963 A1 20040303;
EP 1392963 B1 20071010; JP 2005500451 A 20050106; JP 4064244 B2 20080319; KR 100826462 B1 20080502; KR 20030013519 A 20030214;
US 2004011897 A1 20040122; US 6910643 B2 20050628

DOCDB simple family (application)

DE 0201500 W 20020424; BR 0205280 A 20020424; CN 02801657 A 20020424; CZ 200367 A 20020424; DE 10123850 A 20010516;
DE 50211051 T 20020424; EP 02737816 A 20020424; JP 2002590236 A 20020424; KR 2003700056 A 20030103; US 33349003 A 20030710