

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFF-EINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1763630 A1 20070321 (DE)

Application
EP 05755639 A 20050701

Priority
• EP 2005007130 W 20050701
• DE 102004032229 A 20040702

Abstract (en)
[origin: WO2006002953A1] Disclosed is a fuel injection valve for fuel injection systems of internal combustion engines, especially for injecting fuel directly into a combustion chamber of an internal combustion engine. Said fuel injection valve comprises a fuel inlet (12) that is designed for feeding fuel into the fuel injection valve and an electrically triggered actuating device (24) which cooperates with a valve arrangement (20) in order to discharge fuel into the combustion chamber in a directly or indirectly controlled manner via a fuel outlet (18). The actuating device (24) is provided with a solenoid arrangement (24a) which is to be supplied with power, a substantially magnetically soft magnet yoke arrangement (24b) that cooperates therewith, and a substantially magnetically soft magnet armature (24) which cooperates therewith. The magnet yoke arrangement (24b) is formed by at least two yoke disks (125). At least one face (127, 128) of each yoke disk (125) is provided with at least one pole web (25a, 25b) which acts upon the magnet armature arrangement (24c) along with the electric solenoid arrangement (24a1, 24a2). Each yoke disk (125) is composed of at least two partial yokes (125a) which contain soft metal and at least partly surround an actuating rod (22) that supports the magnet armature (24c).

IPC 8 full level
F02M 51/06 (2006.01); **F02M 45/08** (2006.01); **F02M 61/16** (2006.01); **H01F 7/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 45/08 (2013.01 - EP US); **F02M 51/0621** (2013.01 - EP US); **F02M 51/0653** (2013.01 - EP US); **F02M 61/166** (2013.01 - EP US); **F02M 61/168** (2013.01 - EP US); **H01F 7/1638** (2013.01 - EP US); **F02M 2200/30** (2013.01 - EP US); **H01F 7/081** (2013.01 - EP US); **H01F 2007/1676** (2013.01 - EP US); **H01F 2007/1692** (2013.01 - EP US)

Citation (search report)
See references of WO 2006002953A1

Designated contracting state (EPC)
DE FR

DOCDB simple family (publication)
DE 102004032229 B3 20060105; CN 1981129 A 20070613; CN 1981129 B 20100602; DE 502005008333 D1 20091126;
EP 1763630 A1 20070321; EP 1763630 B1 20091014; US 2008092854 A1 20080424; US 8028937 B2 20111004; WO 2006002953 A1 20060112

DOCDB simple family (application)
DE 102004032229 A 20040702; CN 200580022374 A 20050701; DE 502005008333 T 20050701; EP 05755639 A 20050701;
EP 2005007130 W 20050701; US 57148605 A 20050701