

Title (en)

Fuel injector for an internal combustion engine

Title (de)

Kraftstoffeinspritzventil für Brennkraftmaschinen

Title (fr)

Injecteur de combustible pour moteurs à combustion interne

Publication

EP 1422418 B1 20080220 (DE)

Application

EP 03011992 A 20030528

Priority

DE 10253721 A 20021119

Abstract (en)

[origin: EP1422418A1] The valve body (1) has a bore (3) and valve seat (12) with injection opening (16) at the end opening into the burner chamber. The valve needle (5) in the bore (3) has a cylindrical section (105) with diameter (DZ) amounting to 1.0 to 1.5 times the diameter of the seat edge (18). The cylindrical section directly adjoins the valve sealing face (14).

IPC 8 full level

F02M 61/10 (2006.01); **F02M 61/18** (2006.01); **F02M 61/04** (2006.01); **F02M 61/12** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP)

F02M 61/042 (2013.01); **F02M 61/12** (2013.01); **F02M 61/1873** (2013.01); **F02M 61/20** (2013.01)

Citation (examination)

- DE 10031264 A1 20020117 - BOSCH GMBH ROBERT [DE]
- US 5890660 A 19990406 - STEVENS JOHN WILLIAM [GB]
- DE 4117910 A1 19921203 - YAROSLAVSKIJ Z DIZEL NOJ APPAR [RU]
- DE 19942370 A1 20010322 - BOSCH GMBH ROBERT [DE]
- DE 19634933 A1 19980305 - BOSCH GMBH ROBERT [DE]
- US 6427932 B1 20020806 - DANCKERT BERND [DE], et al
- WO 9619661 A1 19960627 - LUCAS IND PLC [GB], et al
- WO 8903935 A
- GB 562033 A 19440615 - WILLIAM REGINALD COBB, et al

Cited by

CN109210253A; CN114592998A; US7559312B2; US8720802B2; US10508634B2; WO2006087186A1; WO2016096217A1; WO2006128756A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1422418 A1 20040526; EP 1422418 B1 20080220; DE 10253721 A1 20040603; DE 50309190 D1 20080403; JP 2004169699 A 20040617

DOCDB simple family (application)

EP 03011992 A 20030528; DE 10253721 A 20021119; DE 50309190 T 20030528; JP 2003385454 A 20031114