

Title (en)

Fuel injection system for internal combustion engine

Title (de)

Kraftstoffeinspritzeinrichtung für eine Brennkraftmaschine

Title (fr)

Dispositif d'injection de carburant pour un moteur à combustion interne

Publication

**EP 1310666 A3 20040204 (DE)**

Application

**EP 02022357 A 20021008**

Priority

DE 10155412 A 20011110

Abstract (en)

[origin: EP1310666A2] The fuel injection device has a high pressure fuel pump (10) connected to a fuel injection valve (12) and a first control valve device (62) for controlling an unchoked connection (59) between a pump working chamber (22) and a discharge chamber (24) and a connection between the pump's working chamber and the discharge chamber via a choke point (58) or a pressure limiting valve.

IPC 1-7

**F02M 57/02**; **F02M 47/02**; **F02M 59/36**; **F02M 45/02**; **F02M 45/12**

IPC 8 full level

**F02M 45/02** (2006.01); **F02M 45/04** (2006.01); **F02M 45/12** (2006.01); **F02M 47/02** (2006.01); **F02M 59/36** (2006.01); **F02M 59/46** (2006.01); **F02M 57/02** (2006.01)

CPC (source: EP US)

**F02M 45/02** (2013.01 - EP US); **F02M 45/04** (2013.01 - EP US); **F02M 45/12** (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 59/368** (2013.01 - EP US); **F02M 61/205** (2013.01 - EP US); **F02M 63/0017** (2013.01 - EP US); **F02M 63/0035** (2013.01 - EP US); **F02M 63/004** (2013.01 - EP US); **F02M 63/0047** (2013.01 - EP US); **F02M 63/0049** (2013.01 - EP US); **F02M 57/023** (2013.01 - EP US); **F02M 63/0043** (2013.01 - EP US); **F02M 63/0045** (2013.01 - EP US); **F02M 63/0061** (2013.01 - EP US)

Citation (search report)

- [PX] WO 02057621 A1 20020725 - BOSCH GMBH ROBERT [DE], et al
- [PX] EP 1236884 A2 20020904 - BOSCH GMBH ROBERT [DE]
- [A] DE 4118236 A1 19911212 - AVL VERBRENNUNGSKRAFT MESSTECH [AT]
- [DA] EP 0957261 A2 19991117 - LUCAS IND PLC [GB]

Cited by

CN105378262A; US9316190B2; WO2005124145A1; WO2011101174A1; WO2011101419A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

**EP 1310666 A2 20030514**; **EP 1310666 A3 20040204**; DE 10155412 A1 20030522; US 2003098015 A1 20030529

DOCDB simple family (application)

**EP 02022357 A 20021008**; DE 10155412 A 20011110; US 28749902 A 20021105