

Title (en)

Fuel injection valve

Title (de)

Brennstoffeinspritzventil

Title (fr)

Soupape d'injection de carburant

Publication

EP 1260703 A3 20040128 (DE)

Application

EP 02010912 A 20020516

Priority

DE 10124745 A 20010521

Abstract (en)

[origin: EP1260703A2] The injection ports (7) issue from raised parts (36) surmounting the valve seat (5) and through fuel channels (39) in the parts (36). The raised parts (36) thus enter the space (38) between valve seat (5) and seal (4). The fuel channels (39) widen out towards the ports (7), first in a barrel shape going over into a trumpet shape.

IPC 1-7

F02M 51/06; **F02M 61/18**

IPC 8 full level

F02M 51/06 (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP)

F02M 51/0671 (2013.01); **F02M 61/18** (2013.01); **F02M 61/1806** (2013.01); **F02M 61/1833** (2013.01); **F02M 61/188** (2013.01); **F02M 61/205** (2013.01); **F02M 61/165** (2013.01)

Citation (search report)

- [X] US 5540200 A 19960730 - NAITOH KEN [JP], et al
- [E] DE 10056039 A1 20020516 - BOSCH GMBH ROBERT [DE]
- [X] EP 0520659 A1 19921230 - WAERTSILAE NSD OY AB [FI]
- [Y] GB 2097471 A 19821103 - LUCAS IND PLC
- [Y] US 5752316 A 19980519 - TAKAGI TAKAAKI [JP], et al
- [A] DE 19847460 A1 20000420 - BOSCH GMBH ROBERT [DE]
- [A] GB 736264 A 19550907 - DAIMLER BENZ AG
- [Y] DE 2711350 A1 19780921 - BOSCH GMBH ROBERT

Cited by

WO2010023012A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1260703 A2 20021127; **EP 1260703 A3 20040128**; **EP 1260703 B1 20070704**; DE 10124745 A1 20030327; DE 50210406 D1 20070816

DOCDB simple family (application)

EP 02010912 A 20020516; DE 10124745 A 20010521; DE 50210406 T 20020516