

Title (en)

Fuel injection valve

Title (de)

Brennstoffeinspritzventil

Title (fr)

Soupape d'injection de combustible

Publication

EP 1213475 A3 20040102 (DE)

Application

EP 01129476 A 20011211

Priority

DE 10061572 A 20001211

Abstract (en)

[origin: EP1213475A2] The valve includes a valve seat body (5) with valve seat (6) including a valve closing body (4) in working connection with a valve needle (3) via a ball joint (45). The angle (other than zero) between the center axis (44) of the spray aperture (7) and the center axis (43) of the valve is set by angling the sphere-sector-shaped valve seat body.

IPC 1-7

F02M 61/18; **F02M 51/06**; **F02M 61/12**; **F02M 61/16**

IPC 8 full level

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

CPC (source: EP)

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

Citation (search report)

- [XA] US 4597558 A 19860701 - HAFNER UDO [DE], et al
- [AD] DE 19815789 A1 19991014 - BOSCH GMBH ROBERT [DE]
- [A] US 5241858 A 19930907 - WIECZOREK DAVID P [US], et al
- [A] DE 19723953 A1 19981210 - BOSCH GMBH ROBERT [DE]
- [A] US 4354640 A 19821019 - HANS WALDEMAR
- [AD] US 5058549 A 19911022 - HASHIMOTO EIJI [JP], et al

Cited by

WO2007073975A1

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 1213475 A2 20020612; **EP 1213475 A3 20040102**; DE 10061572 A1 20020627

DOCDB simple family (application)

EP 01129476 A 20011211; DE 10061572 A 20001211