

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 0853725 A1 19980722 (DE)

Application
EP 97918045 A 19970321

Priority
• DE 9700577 W 19970321
• DE 19627090 A 19960705

Abstract (en)
[origin: DE19627090A1] In known valves, when the perforated injection disk is welded to the valve seat body, stresses are produced which affect the roundness of the valve seat surface, and so minor fuel leaks may occur in the closed state of the valve. The object of the invention therefore is to prevent such welding from affecting in an undesirable manner the roundness of the valve seat surface, and to improve the tightness of the valve in its closed state. A continuous groove (18) provided on the bottom front face (17) of the valve seat body (16) reduces heat transfer between the welding seam (31) between the perforated injection disk (21) and the valve seat body (16). Thermally and mechanically caused stresses are absorbed by a welding edge (33) and the valve seat surface (29) is kept free from such stresses. This fuel injection valve is particularly suitable for fuel injection systems of mixture-compressing, spark-ignited internal combustion engines.

IPC 1-7
F02M 51/08

IPC 8 full level
F02M 51/06 (2006.01); **F02M 51/08** (2006.01); **F02M 61/18** (2006.01)

CPC (source: EP KR)
F02M 51/0682 (2013.01 - EP); **F02M 61/18** (2013.01 - KR); **F02M 61/1806** (2013.01 - EP); **F02M 61/1853** (2013.01 - EP)

Citation (search report)
See references of WO 9801665A1

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
DE 19627090 A1 19980108; BR 9706538 A 19990720; DE 59704441 D1 20011004; EP 0853725 A1 19980722; EP 0853725 B1 20010829; ES 2163754 T3 20020201; JP H11512167 A 19991019; KR 19990028585 A 19990415; RU 2173788 C2 20010920; WO 9801665 A1 19980115

DOCDB simple family (application)
DE 19627090 A 19960705; BR 9706538 A 19970321; DE 59704441 T 19970321; DE 9700577 W 19970321; EP 97918045 A 19970321; ES 97918045 T 19970321; JP 50462598 A 19970321; KR 19970709906 A 19971230; RU 98106228 A 19970321