

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1149237 B2 20090325 (DE)

Application
EP 00984851 A 20001021

Priority
• DE 0003731 W 20001021
• DE 19950760 A 19991021

Abstract (en)
[origin: DE19950760A1] The lifting unit (14) is a hermetically sealed unit compared to a valve inner chamber (41) and an housing (15) of the lifting unit (14), has at least one flexible section (16,17) in an axial direction. The housing (15) has a locally fixed section (42) connected with a valve housing (13) and first and second flexible sections (16,17). So that the first flexible section (16) is connected with the fixed section (42) and the first stroking piston (21) and the second flexible section (17) with the locally fixed section (42) and the second stroking piston (23) or is connected fixed by the valve needle (20) operated by the second stroking piston (23).

IPC 8 full level
F02M 51/06 (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 51/0603 (2013.01 - EP US); **F02M 61/167** (2013.01 - EP US); **F02M 2200/16** (2013.01 - EP US)

Citation (opposition)
Opponent :
• US 48584339 B
• DE 19500706 A1 19960718 - BOSCH GMBH ROBERT [DE]
• DE 4306073 C1 19940601 - SIEMENS AG [DE]
• DE 4442649 C2 19961024 - SIEMENS AG [DE]
• DE 4119497 A

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 19950760 A1 20010426; CN 1175179 C 20041110; CN 1327507 A 20011219; CZ 20012269 A3 20020612; CZ 295457 B6 20050817; DE 50003719 D1 20031023; EP 1149237 A1 20011031; EP 1149237 B1 20030917; EP 1149237 B2 20090325; JP 2003512558 A 20030402; JP 4588956 B2 20101201; US 6685105 B1 20040203; WO 0129403 A1 20010426

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