

Title (en)
FUEL INJECTION VALVE

Title (de)
KRAFTSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1071877 A1 20010131 (DE)

Application
EP 99962097 A 19991130

Priority
• DE 9903782 W 19991130
• DE 19906266 A 19990215

Abstract (en)
[origin: DE19906266A1] The fuel injection valve has a bi-directionally displaceable valve element (1) for controlling a fuel outlet opening (4), a first opening surface (8) on the valve element for an opening pressure chamber (6) connected to a high pressure fuel source (10) and a first closure surface (11) for a closing pressure chamber (12) connected to the high pressure fuel source. An actuation arrangement (15,16,18,20,21) enables a second opening force to be introduced for opening the valve element that acts in addition to the first opening force exerted on the first opening surface.

IPC 1-7
F02M 47/02; **F02M 51/06**

IPC 8 full level
F02M 47/00 (2006.01); **F02M 47/02** (2006.01); **F02M 51/06** (2006.01)

CPC (source: EP US)
F02M 47/02 (2013.01 - EP US); **F02M 51/0603** (2013.01 - EP US)

Citation (search report)
See references of WO 0049285A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 19906266 A1 20000817; EP 1071877 A1 20010131; JP 2002537514 A 20021105; US 6419164 B1 20020716; WO 0049285 A1 20000824

DOCDB simple family (application)
DE 19906266 A 19990215; DE 9903782 W 19991130; EP 99962097 A 19991130; JP 2000599996 A 19991130; US 67335800 A 20001229