

Title (en)
Fuel injector

Title (de)
Kraftstoffeinpritzventil

Title (fr)
Injecteur de carburant

Publication
EP 1184563 B1 20041124 (EN)

Application
EP 01119222 A 20010809

Priority
JP 2000260779 A 20000830

Abstract (en)
[origin: EP1184563A2] A fuel injector (1) comprises a housing (2) with nozzles, a needle (3) movably accommodated in a needle accommodating chamber (5) formed in the housing, a fuel supply conduit (6) extending in the housing to the nozzles, a pressure control chamber (8) defined between the needle (3) and an inner wall of the needle accommodating chamber (5), a valve chamber (10) formed in the housing and connected to the pressure control chamber (8) via a communicating conduit, and a pressure control valve (14) accommodated in the valve chamber for controlling communication between the valve chamber and a relief conduit (12). When the pressure control valve (14) prevents communication between the valve chamber (10) and the relief conduit (12), fuel pressure in the pressure control chamber is increased and the needle is displaced in a first direction in which a volume of the pressure control chamber is increased and, when the pressure control valve connects the valve chamber and the relief conduit, a fuel pressure in the pressure control chamber drops and the needle is displaced in a second direction in which a volume of the pressure control chamber is reduced. The valve chamber is connected to the fuel supply conduit (6) via an inflowing conduit, so that fuel flows into the pressure control chamber from the fuel supply conduit through the valve chamber when the pressure control valve prevents communication between the valve chamber and the relief conduit. <IMAGE>

IPC 1-7
F02M 47/02; **F02M 45/12**; **F02M 59/46**

IPC 8 full level
F02M 47/00 (2006.01); **F02M 45/00** (2006.01); **F02M 45/12** (2006.01); **F02M 47/02** (2006.01); **F02M 59/46** (2006.01); **F02M 61/10** (2006.01)

CPC (source: EP)
F02M 45/12 (2013.01); **F02M 47/027** (2013.01); **F02M 63/0026** (2013.01)

Cited by
DE102005004405A1; AT501668A1; AT501668B1; DE102014201061A1; WO2004046539A1; WO2004111432A1; WO2006134003A1

Designated contracting state (EPC)
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