

Title (en)

FUEL INJECTION APPARATUS FOR AN INTERNAL COMBUSTION ENGINE HAVING DIRECT FUEL INJECTION

Title (de)

KRAFTSTOFF-EINSPRITZVORRICHTUNG FÜR EINE BRENNKRAFTMASCHINE MIT KRAFTSTOFF-DIREKTEINSPRITZUNG

Title (fr)

DISPOSITIF D'INJECTION DE CARBURANT POUR MOTEUR A COMBUSTION INTERNE A INJECTION DIRECTE DE CARBURANT

Publication

**EP 1952011 A1 20080806 (DE)**

Application

**EP 06807052 A 20061006**

Priority

- EP 2006067156 W 20061006
- DE 102005054385 A 20051115
- DE 102006012078 A 20060316

Abstract (en)

[origin: WO2007057252A1] A fuel injection apparatus (10) comprises a housing (12), in which a valve element (18) is arranged. Said valve element (18) has a hydraulic pressure face (20, 22) which acts in the opening direction and delimits a high-pressure space (28) which is connected to a high-pressure connection (54). Furthermore, there is a hydraulic control face (46) on the valve element (18), which hydraulic control face (46) acts in the closing direction and delimits a control space (48), in which a variable control pressure prevails during operation. It is proposed that the valve element (18) interacts in a throttling manner with a housing region (26) in an open position or an open position region in such a way that a pressure which is lower than the pressure in the high-pressure space (28) prevails at least on one part of the pressure face (20, 22).

IPC 8 full level

**F02M 47/02** (2006.01); **F02M 61/12** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP)

**F02M 47/027** (2013.01); **F02M 61/12** (2013.01); **F02M 61/205** (2013.01); **F02M 2200/703** (2013.01); **F02M 2547/001** (2013.01); **F02M 2547/003** (2013.01)

Citation (search report)

See references of WO 2007057252A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

**DE 102006012078 A1 20070516**; EP 1952011 A1 20080806; EP 1952011 B1 20130724; WO 2007057252 A1 20070524

DOCDB simple family (application)

**DE 102006012078 A 20060316**; EP 06807052 A 20061006; EP 2006067156 W 20061006