

Title (en)

FUEL INJECTION DEVICE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)

SYSTEME D'INJECTION DE CARBURANT POUR MOTEUR A COMBUSTION INTERNE

Publication

EP 1423598 A2 20040602 (DE)

Application

EP 02758167 A 20020823

Priority

- DE 0203139 W 20020823
- DE 10141678 A 20010825

Abstract (en)

[origin: WO03018990A2] The fuel injection device is provided - for each cylinder of the internal combustion engine with a high-pressure fuel pump (10) with a working pumping chamber (22) and a fuel injection valve (12) connected thereto. The fuel injection valve (12) comprises a first injection valve member (28) which is used to control at least one first injection opening (32) and which on account of the pressure produced in the working pumping chamber (22) can be moved counter to a closing force in a direction of opening (29). A second injection valve member (128) is displaceably guided in the first hollow injection valve member (28) and used to control at least one second injection opening (132); whereby the pressure prevailing in the pressure chamber (40) enables it to be moved counter to a closing force in a direction of opening (29), whereby the second injection valve member (128) is impinged upon, at least indirectly, by the pressure prevailing in a control chamber (50) filled with fuel, said pressure being able to be produced by a feed pump (52) according to operational parameters of the combustion engine in such a way that the second injection valve (128) remains in a closed position or can open.

IPC 1-7

F02M 45/08; F02M 57/02; F02M 63/02

IPC 8 full level

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CPC (source: EP KR US)

F02M 45/04 (2013.01 - EP US); **F02M 45/08** (2013.01 - KR); **F02M 45/086** (2013.01 - EP US); **F02M 45/12** (2013.01 - EP US); **F02M 61/205** (2013.01 - EP US); **F02M 57/023** (2013.01 - EP US); **F02M 59/366** (2013.01 - EP US); **F02M 59/466** (2013.01 - EP US); **F02M 59/468** (2013.01 - EP US); **F02M 61/1806** (2013.01 - EP US); **F02M 2200/46** (2013.01 - EP US)

Citation (search report)

See references of WO 03018990A2

Citation (examination)

DE 4115457 A1 19911121 - AVL VERBRENNUNGSKRAFT MESSTECH [AT]

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