

Title (en)

BOOSTED FUEL INJECTOR WITH RAPID PRESSURE REDUCTION AT END OF INJECTION

Title (de)

DRUCKÜBERSETZER KRAFTSTOFFINJEKTOR MIT SCHNELLEM DRUCKABBAU BEI EINSPRITZENDE

Title (fr)

INJECTEUR DE CARBURANT A MULTIPLICATEUR DE PRESSION A REDUCTION DE PRESSION RAPIDE LORS DE L'INJECTION

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2004003376A1] The invention relates to a device for injecting fuel into the combustion chamber (7) of an internal combustion engine. The device for injecting fuel comprises a high-pressure accumulator chamber (2) (common rail), a booster (5) and a metering valve (6). The booster (5) comprises a working chamber (10) and a control chamber (11) that are separated by an axially displaceable piston (12; 13, 14). A pressure change in the control chamber (11) of the booster (5) results in a pressure change in the compression chamber (15) of the booster (5). The compression chamber (15) impinges a nozzle chamber (22) in the nozzle body (4) surrounding an injection valve member (26) via a fuel inlet (21). A pressure relief valve (40) is disposed in a control line (20, 49) between the control chamber (11) of the booster (5) and a metering valve (6) that is configured as a 2/2 way valve. Said pressure relief valve comprises a valve body (43, 54) that impinges at least one hydraulic chamber (41, 42) of the pressure relief valve (40) and that can be linked with the pressure prevailing in the high-pressure accumulator chamber (2).

IPC 1-7

F02M 59/10; **F02M 57/02**

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