

Title (en)

COMMON RAIL INJECTION SYSTEM COMPRISING A VARIABLE INJECTOR AND BOOSTER DEVICE

Title (de)

SPEICHEREINSPRITZSYSTEM MIT VARIODÜSE UND DRUCKÜBERSETZUNGSEINRICHTUNG

Title (fr)

SYSTEME A RAMPE COMMUNE COMPRENANT UNE BUSE VARIABLE ET UN SYSTEME MULTIPLICATEUR DE PRESSION

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2004003374A1] The invention relates to a fuel injection system for internal combustion engines. A fuel injector (1) is supplied with fuel by means of a high-pressure fuel source (2, 81). A booster (5) is disposed between an injection valve (6) and the high-pressure fuel source (2, 81). Said booster (5) has a booster piston (12) which separates a pressure chamber (11) which can be connected to the high-pressure fuel source (2, 81) from a high-pressure chamber (20) impinging an injection chamber (29) of the fuel injector (1). The injection valve (6) of the fuel injector (1) comprises an injector needle (30) which releases or closes injection openings that point towards a combustion chamber (7). The injector needle (30) comprises a first injector needle element (31) and an additional, second injector needle element (32) that, when controlled depending on the pressure, release or close different injection cross-sections (42, 43) on an injection nozzle (41).

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