

Title (en)

FUEL INJECTION SYSTEM COMPRISING AN INTEGRATED PRESSURE BOOSTER

Title (de)

KRAFTSTOFFEINSPRITZEINRICHTUNG MIT INTEGRIERTEM DRUCKVERSTÄRKER

Title (fr)

SYSTEME D'INJECTION DE CARBURANT COMPRENANT UN MULTIPLICATEUR DE PRESSION INTEGRE

Publication

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Application

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Abstract (en)

[origin: WO2004042224A1] The invention relates to a fuel injection system for combustion engines. The inventive system comprises a fuel injector (3) fed by a high-pressure fuel source (21). A pressure booster (2) provided with a booster piston (5) is arranged between said fuel injector (3) and high-pressure fuel source (21). The booster piston (5) separates a chamber (9) connected to high-pressure fuel source (21), a high-pressure chamber (11) connected to the fuel injector and a differential pressure chamber (10). The pressure booster (2) is actuated by means of a 2/2-way valve (4) which is connected to the differential pressure chamber (10). According to the invention, the differential pressure chamber (10) and the high-pressure chamber (11) of the pressure booster (2) are refuelled by means of hydraulically controlled non-return valves (26, 31) which are exposed to a hydraulic action by means of a fluidic liaison (25) which exits the high-pressure chamber (11) of the pressure booster (2) when the differential pressure chamber (10) is decompressed.

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