

Title (en)
FUEL INJECTION DEVICE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)
DISPOSITIF D'INJECTION DE CARBURANT POUR MOTEUR A COMBUSTION

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Application
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Abstract (en)
[origin: WO02086307A1] The invention relates to an internal combustion engine comprising a high-pressure fuel pump (10) and a fuel injection valve (12) for a cylinder in the combustion engine. Said high-pressure fuel pump (10) comprises a working chamber (22) and the fuel injection valve (12) comprises an injection valve member (28) which controls at least one injection opening (32) and which can be displaced in the direction of the opening (29) counter to the force of a closing spring (44), whereby the closing spring (44) is supported by a injection valve member (28) and a displaceable accumulator piston (50), which is impinged upon by pressure produced in the working chamber (22) of the pump on the side facing away from the closing spring (44). Said accumulator piston (50) can be displaced counter to the force of the closing spring (44) into the accumulator chamber (55) and the alternative stroke of the piston (50) into the accumulator chamber (55) is limited by a stop (54). Part of the shaft (52) can be displaced with the accumulator piston (50), said part (52) comprising a shaft section (74) which is arranged in a connecting bore (53) in an outward position and which has a smaller diameter and a shaft section (72) with a larger diameter which is disposed outside the connecting bore (53) in the accumulator chamber (55). The shaft section (72) with the larger diameter plunges into the connecting bore (53) during the alternating stroke of the accumulator piston (50) when said piston moves into the accumulator chamber (55).

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