

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

Title (de)  
KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

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

Publication  
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Application  
**EP 02792633 A 20021205**

Priority  
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Abstract (en)  
[origin: WO03067070A1] The invention relates to a fuel injection device which comprises for every cylinder of the internal combustion engine one high-pressure fuel pump (10) and one fuel injection valve (12) linked therewith. A pump plunger (18) of the high-pressure fuel pump (10) delimits a pump working chamber (22) that is linked with a pressure compartment (40) of the fuel injection valve (12) which comprises an injection valve member (28). Said injection valve member controls injection openings (32) and can be displaced against a closing force in an opening direction (29) by the pressure prevailing in the pressure compartment (40). A first control valve (68) controls a connection (66) of the pump working chamber (22) with a relief chamber (24) and a second control valve (70) controls a connection (64) of a control pressure compartment (52) linked with pump working chamber (22) with a relief chamber (24). In a control piston (50) impinging the injection valve member (28), in the lift position of the control piston (50), when the injection valve member (28) is in the closed position, a larger front face of the control piston (50) is impinged upon by the pressure prevailing in the control pressure compartment (52) than in a lift position of the control piston (50), when the injection valve member (28) is opened with a maximum lift.

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IPC 8 full level  
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