

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  
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Abstract (en)  
[origin: WO2004076847A1] The invention relates to a fuel injection device comprising a high-pressure pump (10) which is used to deliver fuel into a tank (12) from which fuel is extracted for injecting into the internal combustion engine. A feed pump (22) is used to deliver fuel from a fuel reservoir (24) to the high-pressure pump (10). Said high-pressure pump (10) comprises a housing (30) provided with an inner chamber (31) in which a drive (32, 34) for at least one pump element (36) pertaining to the high-pressure pump (10) is arranged. Said pump element (36) comprises a pump piston (38) which is driven by a drive (32, 34) in a reciprocating motion and defines a pump working chamber (42) into which fuel is supplied through an admission (60) during a suction stroke of the pump piston (38), and out of which fuel is driven through an outlet (64), into the tank, (12) during a delivery stroke of the pump piston (38). The pump piston (38) moves towards the inner chamber (31) during the suction stroke, and moves away from the inner chamber (31) during the delivery stroke. The feed pump (22) delivers fuel into the inner chamber (31) by means of a connection (23) comprising a check valve (52) which is open towards the inner chamber (31) of the housing (30), and the admission (60) of the pump working chamber (42) is connected to the inner chamber (31).

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