

Title (en)
INJECTION UNIT AND INJECTION METHOD FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
EINSPRITZANLAGE UND EINSPRITZVERFAHREN FÜR EINE BRENNKRAFTMASCHINE

Title (fr)
SYSTEME D'INJECTION ET PROCEDE D'INJECTION POUR UN MOTEUR A COMBUSTION INTERNE

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Application
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Abstract (en)
[origin: WO2005052355A1] The invention relates to an injection unit (10), for an internal combustion engine, comprising a pressure reservoir (12), for storing fuel pumped from a fuel tank (16) and an injector arrangement (20), connected to the pressure reservoir, by means of a pressure line arrangement (18), whereby the injector arrangement (20) has at least one servo injection valve, provided with a control valve, for the release of fuel from a control chamber into a fuel return line (22), leading to the fuel tank (16) and which may be operated by means of a piezoelectric actuator to cause a displacement of a nozzle body in the direction of an injection passage opening, for initiating an injection process by pressure reduction in the control chamber. According to the invention, the fuel return line (22) is provided with a controllable valve (40), which restricts the fuel flow in the fuel return line in the actuated state. It is thus possible to reduce the effects of a change of length of the piezoelectric actuator, which exceeds the so-called tolerance gap in the servo injection valve, which are detrimental to the operation of the injection unit.

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