

Title (en)  
FUEL INJECTION DEVICE FOR INTERNAL COMBUSTION ENGINES

Title (de)  
KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR BRENNKRAFTMASCHINEN

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

Publication  
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Application  
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Abstract (en)  
[origin: US5692476A] PCT No. PCT/DE96/00161 Sec. 371 Date Oct. 18, 1996 Sec. 102(e) Date Oct. 18, 1996 PCT Filed Feb. 2, 1996 PCT Pub. No. WO96/26362 PCT Pub. Date Aug. 29, 1996A fuel injection device for internal combustion engines with a high pressure fuel pump that delivers fuel from a low pressure chamber via high pressure lines to at least one injection valve that protrudes into the combustion chamber of the engine to be fed. The device includes a through flow limiting valve that defines a maximum fuel flow quantity in one or a number of high pressure lines and has a valve member, which can move axially and in its closed position, can be brought against a valve seat counter to the force of a restoring spring by fuel flowing toward the injection valve when a maximum fuel flow quantity is exceeded. Wherein the fuel flow through the valve member that is lifted up from its seat can be adjusted in at least one throttle location in the valve member. In order to be able to detect even extremely small leakage quantities, the through flow limiting valve is designed so that in each injection, the valve member executes a stroke motion toward the valve seat but only reaches it when there is a leaky high pressure line, wherein when there are low leakage quantities, the initial position of the valve member moves toward the valve seat during the injection pauses.

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