Title (en)

STROKE-CONTROLLED VALVE AS A FUEL METERING DEVICE OF AN INJECTION SYSTEM FOR INTERNAL COMBUSTION ENGINES

Title (de)

HUBGESTEUERTES VENTIL ALS KRAFTSTOFF-ZUMESSEINRICHTUNG EINES EINSPRITZSYSTEMS FÜR BRENNKRAFTMASCHINEN

Title (fr)

SOUPAPE A LEVEE COMMANDEE UTILISEE COMME DISPOSITIF DE DOSAGE DE CARBURANT D'UN SYSTEME D'INJECTION DE MOTEURS A COMBUSTION INTERNE

Publication

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Application

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Abstract (en)

[origin: WO0244548A1] The invention relates to a stroke-controlled valve which is used as a fuel metering device of an injection system for internal combustion engines. Said valve has a valve needle (11) which can be actuated axially against the resistance of a spring (24), which is arranged in a graduated, coaxial recess (13) in a valve body (10) and which interacts with a valve seat (17) which is configured in the recess (13) of the valve body (10), hereby controlling the fuel injection process. The valve also comprises a high-pressure area (18) which is connected to an allocated injection nozzle and which is located in front of the valve seat (17), a low-pressure area (28) which is located behind the valve seat and which opens out into the fuel return passage (30); and a low-pressure compensating piston (22) which coaxially adjoins the valve (16, 17) and which is solidly connected to the valve needle. The invention is characterised in that a first control edge (39 or 42) is configured on the low-pressure compensating piston (22). Said control edge interacts with a second control edge (40 or 43) on the valve body recess (13) in the area of the fuel return passage (45, 30) or (48, 30) in such a way that a throttle cross-section (38, 38a or 46, 44a) that is dependent on the valve stroke (41) is formed between the two control edges (39, 40 or 42, 43).

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