

Title (en)
FUEL INJECTION NOZZLE FOR INTERNAL COMBUSTION ENGINES

Title (de)
KRAFTSTOFF-EINSPRITZDÜSE FÜR BRENNKRAFTMASCHINEN

Title (fr)
INJECTEUR DE CARBURANT POUR MOTEURS A COMBUSTION INTERNE

Publication
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Application
EP 93915674 A 19930729

Priority
• DE 4225805 A 19920805
• DE 9300669 W 19930729

Abstract (en)
[origin: DE4225805A1] A fuel injection nozzle for internal combustion engines for pre and main injection has an inwardly opening valve needle (15) which is loaded by a single closing spring (27). After a preliminary stroke (hv) in which the supply pressure controls the stroke in combination with the effective area of the valve needle (15), the stroke is diverted to an intermediate piston (30), the operative area of which is smaller than that of the valve needle (15). Owing to the reduced power, in relation to that of the valve needle, of the piston (30) loading the closing spring (27), the valve needle is opened more flatly after the preliminary stroke (hv) than during the preliminary stroke.

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