

Title (en)
INJECTION NOZZLE FOR INJECTION INTERNAL COMBUSTION ENGINES

Publication
EP 0149598 B1 19880817 (DE)

Application
EP 85890010 A 19850115

Priority
AT 11884 A 19840116

Abstract (en)
[origin: EP0149598A2] 1. Injection device for injection internal combustion engines with a pump (3) for supplying the jet with fuel under pre-determined pressure, in which the jet needle (18) immerses in a space (12) that can be filled with fuel under pressure and is held in the closed position by the pressure in this space and a spring (17), whereby the immersion space (12) of the jet needle (18) is connected by means of an outwardly opening non-return valve (13) with a high-pressure space (14) and with a jet needle space (16), whereby the surface of the jet needle (18) effective in the opening phase multiplied by the pump pressure is smaller than the sum of the surface effective in the closed phase of the jet needle (18) multiplied by the pump pressure and the force of the jet needle spring (17) effective in the closed phase, whereby one end of a high-pressure piston (20) immerses in the high-pressure space (14), the other end of which immerses in a control space (19), in which a control piston (10) pressurised with pump pressure is driven, whereby the effective section of the control piston (10) is greater than the effective section of the high-pressure piston (20) and the control piston (10) during the injection process operates together force-coupled with the high-pressure piston (20), characterised in that the supply of fuel into the high-pressure space (14) takes place through the immersion space (12) of the jet needle spring and the non-return valve (13) which is provided in the connecting pipe between the immersion space (12) and the high-pressure space (14), that the control piston (10) can also be pressurised on its side turned away from the control space (19) with the pump pressure, that the control space (19) is connected by a throttle (23) with the working space (9) of the control piston (10) and that the control space (19) can be connected to the return pipe to initiate an injection process by the release of pressure through a controllable valve (24).

IPC 1-7
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IPC 8 full level
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CPC (source: EP)
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Cited by
EP0879954A3; US5447138A; EP0851117A1; US5950601A; US5492098A; CN104847554A; US5477828A; US5529044A; US5357912A; EP0299337A3; DE3802136A1; US5445129A; US5271371A; GB2185530A; GB2185530B; WO02088542A1; WO9307380A1

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