

Title (en)

Fuel injector for a common rail fuel system

Title (de)

Einspritzventil für ein Common-Rail Kraftstoffsystem

Title (fr)

Injecteur de carburant pour un système carburant à rampe commune

Publication

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Application

EP 00962182 A 20000801

Priority

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Abstract (en)

[origin: US6726121B1] The invention relates to a common rail injector for injecting fuel in a common rail injection system of an internal combustion engine, which system has an injector housing (1) with a fuel inlet (24) that is in communication with a central high-pressure fuel reservoir outside the injector housing (1) and with a pressure chamber (27) inside the injector housing (1), from which fuel subjected to high pressure is injected as a function of the position of a control valve (18) that assures that a nozzle needle (8), which is movable back and forth and received in a longitudinal bore (6) of the injector axially counter to the prestressing force of a nozzle spring (21) that is received in a nozzle spring chamber (20), lifts from a seat when the pressure in the pressure chamber (27) is greater than the pressure in a control chamber (30) that communicates with the fuel inlet (24) via an inlet throttle (19). To achieve markedly higher nozzle needle speeds, the control chamber (15) is formed by a cylindrical chamber, in which a control peg (12), embodied on the end of the nozzle needle (8) remote from the combustion chamber, is displaceable causing a sealing effect, and that the nozzle spring chamber (20) is disposed outside the control chamber (15), in the region of the end of the nozzle needle (8) remote from the combustion chamber.

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