

Title (en)
FUEL INJECTION VALVE FOR INTERNAL COMBUSTION ENGINES

Title (de)
KRAFTSTOFFEINSPRITZVENTIL FÜR BRENNKRAFTMASCHINEN

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

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Application
EP 09733848 A 20090204

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Abstract (en)
[origin: WO2009130065A1] The invention relates to a fuel injection valve for internal combustion engines for injecting fuel under high pressure utilizing a nozzle needle (10) interacting with a valve seat (13) by means of longitudinal movements thereof, thus opening and closing at least one injection opening (12), wherein the nozzle needle (10) is subjected to a locking force directed toward the direction of the valve seat (13) by means of the pressure in a control space (20). A control valve (30; 30'; 30'') is configured in a valve body (4), by means of which the pressure in the control space (20) can be adjusted, wherein the control valve (30; 30'; 30'') comprises a control valve space (21) connected to the control space (20), in which a control valve member (34; 34'; 34'') is disposed in a longitudinally movable manner, and opens and closes a connection of the control valve space (21) to a leakage oil space (23) by means of the longitudinal movement thereof. The control valve member (34; 34'; 34'') is surrounded by pressure in the control valve space (21) and configured such that no or very little resulting hydraulic force acts upon the control valve member (34; 34'; 34'') in the longitudinal movement direction by means of the pressure in the control space (21), if the control valve member (34; 34'; 34'') closes the connection of the control valve space (21) to the leakage oil space (23).

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