

Title (en)
INJECTOR, ESPECIALLY A COMMON RAIL INJECTOR CONTROLLED BY A SERVO VALVE, FOR INJECTING FUEL INTO THE COMBUSTION CHAMBERS OF INTERNAL COMBUSTION ENGINES

Title (de)
INJEKTOR ZUR EINSPRITZUNG VON KRAFTSTOFF IN BRENNRÄUME VON BRENNKRAFTMASCHINEN, INSBESONDERE SERVOVENTILGESTEUERTER COMMON-RAIL-INJEKTOR

Title (fr)
INJECTEUR POUR INJECTER DU CARBURANT DANS LES CHAMBRES DE COMBUSTION DE MOTEURS A COMBUSTION INTERNE, EN PARTICULIER INJECTEUR DU TYPE A RAMPE COMMUNE D'ALIMENTATION (COMMON RAIL) COMMANDE PAR SERVO-SOUPAPE

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Abstract (en)
[origin: WO2004025114A1] An injector, especially a common rail injector controlled by a servo valve, for injecting fuel into the combustion chambers of internal combustion engines, comprising a nozzle body (10) with a nozzle outlet (12) formed on the combustion-sided (free) end thereof, in addition to a nozzle needle (14) which is arranged in a longitudinal recess (11) of the valve body (10) such that it can be displaced or actuated axially. The injector also comprises a sealing part (17) which is adjacent to (above) the valve body and which seals the rear end (i.e. end facing away from the nozzle outlet (12)) of the longitudinal recess (11) and which forms an opening stop (29) for the nozzle needle (14), cooperating with the rear (i.e. end facing away from the nozzle outlet (12)) surface (37) of the valve needle (14) and defines the opening lift (hDN) of the nozzle needle (14). The injector further comprises a control chamber (28) which is formed between the rear nozzle surface (37) and the sealing part (17) and which is hydraulically connected to a pressure connection (21) used to supply fuel. One particular aspect of the injector is that the rear surface (37) of the nozzle needle (14) and/or the stop surface (20) of the sealing part (17) cooperating therewith is configured in such a way that a dotted or substantially dotted contact surface is formed in an open position of said valve needle (14) between the rear nozzle needle surface (37) and the stop surface (29) of the sealing part (17).

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