

Title (en)

FUEL INJECTION VALVE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

KRAFTSTOFF-EINSPRITZVENTIL FÜR EINE BRENNKRAFTMASCHINE

Title (fr)

SOUPAPE D'INJECTION DE CARBURANT POUR UN MOTEUR À COMBUSTION INTERNE

Publication

EP 2480783 B1 20150624 (DE)

Application

EP 10754337 A 20100916

Priority

- DE 102009042155 A 20090921
- EP 2010063640 W 20100916

Abstract (en)

[origin: WO2011033036A1] The invention relates to a fuel injection valve for directly injecting fuel, gasoline or diesel, at a targeted time and quantity, into the combustion chamber of a cylinder of a running internal combustion engine. The fuel injection valve comprises an injector body (1) having a receiving hole (3) for an injector needle (6), the receiving hole (3) being implemented as a blind hole. The receiving hole forms an injector ring chamber (3a) in the injector shaft (2) and forms a cone-shaped valve seat (4) at the base thereof, and a blind injector hole (8) in the region of the tip of the cone of the valve seat, from which extends at least one injector hole (5). The injector needle (6) disposed displaceably in the longitudinal direction in the receiving hole (3) comprises an at least partially cone-shaped needle tip (7) and seals off the blind injector hole (8), and thus the at least one injector hole (5), from the injector ring chamber (3a). The needle tip (7) of the injector needle (6) is characterized in that said tip comprises a needle pilot (9) adapted in contour and extent to the blind injector hole (8) in the valve seat (4), said pilot protruding into the blind injector hole (8) and thus reducing a compression volume (10) formed between the valve seat (4) and injector hole (5).

IPC 8 full level

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CPC (source: EP US)

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