

Title (en)
FUEL-INJECTION VALVE FOR INTERNAL COMBUSTION ENGINES

Title (de)
KRAFTSTOFFEINSPRITZVENTIL FÜR BRENNKRAFTMASCHINEN

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT POUR MOTEURS A COMBUSTION

Publication
EP 1527276 B1 20061220 (DE)

Application
EP 03787585 A 20030429

Priority

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Abstract (en)
[origin: DE10232050A1] The fuel injection valve, for an internal combustion motor, has a valve body (1) with a piston-type valve needle (5) within a drilling (3) through the body. The lower end of the drilling is defined by a valve seat (9), towards the cylinder combustion zone, to work with the valve sealing surface (7) at the needle. The movement of the needle controls the fuel flow through the injection opening (11). Micro-recesses are formed at the needle valve sealing surface and/or the valve seat, as separate small bowls in a depth of 0.5-50.0 mum and preferably 3-20 mum, and a width of 5-100 mum and preferably 10-50 mum. The gaps between the recesses are smaller around the needle circumference than along the needle length. The recesses can also be groove segments, formed by fine lathe turning.

IPC 8 full level
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