

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 INTERNE

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Application
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Abstract (en)
[origin: WO0201065A1] The invention relates to a fuel injection valve, comprising a valve body (5) in which a piston-shaped valve member (7) is longitudinally displaceable in a bore (15) which is configured in the form of a blind bore. A conical valve seat (23) is provided on the bottom surface of the bore (15), as is an injection opening (25) which connects a pressure chamber (11) formed between the section (107) of the valve member (7) on the combustion chamber side and the bore (15) to the combustion chamber. A valve member tip (13) is configured at the combustion chamber-side end of the valve member (7), a first conical surface (30) which is adjacent to the valve member (7) and a second conical surface (32) which is located on the combustion chamber side in relation to said first conical surface being configured on said tip. The cone angle (α) of the first conical surface (30) is smaller and the cone angle (β) of the second conical surface (32) is greater than the cone angle (γ) of the valve seat (23), so that a sealing edge (40) is formed where the two conical surfaces (30, 32) meet. A peripheral ring groove (35) is configured on the first conical surface (30), this ring groove limiting the enlargement of the hydraulically effective seat diameter resulting from the plastic deformation of the sealing edge (40) and the valve seat (23) to a precisely defined value.

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IPC 8 full level
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