

Title (en)  
FUEL INJECTION VALVE

Title (de)  
KRAFTSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
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Application  
**EP 13779192 A 20131015**

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Abstract (en)  
[origin: WO2014090444A1] The invention relates to a fuel injection valve comprising a control valve (10) for controlling a fuel flow through a drain bore (28), through which drain bore (28) fuel is directed from a control space (10) into a low-pressure space (29) and which drain bore (28) opens into a control valve seat (33) and forms an outlet opening (228) at said control valve seat. The control valve (10) comprises a movable sealing element (40) that interacts with the control valve seat (33; 33') and that closes the outlet opening (228) of the drain bore (28) when abutting at the control valve seat (33; 33'), wherein the sealing element (40) in the closed state of the control valve (10) closes the drain bore (28) along a boundary line (U) against the low pressure space (29) and the boundary line (U) encompasses a cross-section surface (A), wherein the quotient of the square of the boundary line (U<sup>2</sup>) and the cross-section surface (A) is higher than  $4\pi$ . Alternatively, several drain bores can be provided, wherein the quotient of the sum of the squares of the boundary lines (U<sup>2</sup>) and the sum of the cross-section surfaces (A) of the individual drain bores (28') is higher than  $4\pi$ .

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