

Title (en)  
FUEL INJECTOR

Title (de)  
KRAFTSTOFFINJEKTOR

Title (fr)  
INJECTEUR DE CARBURANT

Publication  
**EP 3039283 A1 20160706 (DE)**

Application  
**EP 14749777 A 20140805**

Priority  
• DE 102013217371 A 20130830  
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Abstract (en)  
[origin: WO2015028261A1] The invention relates to a fuel injector for internal combustion engines for injecting fuel at high pressure, comprising a pressure chamber formed in an injector body, in which pressure chamber a nozzle needle is arranged in a longitudinally movable manner, which nozzle needle has a cone region tapered in a combustion chamber direction and a pin region having a constant diameter d23 at a combustion-chamber end of the nozzle needle. The injector body has a substantially conical nozzle needle seat, from which a first injection opening extends, and a blind hole, which adjoins the nozzle needle seat on the combustion chamber side. The blind hole has a cylindrical segment, which has the diameter d31, and a hole base, from which a second injection opening extends. The cone region of the nozzle needle interacts with the nozzle needle seat and thereby opens and closes the first injection opening and the second injection opening with respect to the pressure chamber. During a partial stroke of the nozzle needle, the first injection opening and the second injection opening are connected to each other by means of a throttle gap, which is formed in the blind hole between the pin region and the wall of the blind hole, and the throttle gap remains constant at least over the partial stroke of the nozzle needle.

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Citation (search report)  
See references of WO 2015028261A1

Citation (examination)  
• US 3559892 A 19710202 - LUCA FRANK DE  
• JP 2002322957 A 20021108 - TOYOTA MOTOR CORP

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