

Title (en)  
FUEL INJECTOR HAVING A DIRECTLY ACTUABLE INJECTION VALVE ELEMENT

Title (de)  
KRAFTSTOFFINJEKTOR MIT DIREKT BETÄTIGBAREM EINSPRITZVENTILGLIED

Title (fr)  
INJECTEUR DE CARBURANT DOTE D'UN ORGANE DE SOUPAPE D'INJECTION A ACTIONNEMENT DIRECT

Publication  
**EP 1963659 B1 20151223 (DE)**

Application  
**EP 06807287 A 20061016**

Priority  
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• DE 102005059169 A 20051212

Abstract (en)  
[origin: WO2007068518A1] A fuel injector for an internal combustion engine is proposed having a directly actuatable injection valve element. The fuel injector has a nozzle needle (13), axially guided in a nozzle body (12), and an actuator (20) accommodated in an injector housing (10), wherein the nozzle needle (13) is connected to a coupling piston (34) on the nozzle-needle side and the actuator (20) is connected to a coupling piston (21) on the actuator side. The coupling piston (21) on the actuator side acts on a coupling space (32) and the coupling piston (35) on the nozzle-needle side acts on a control space (38), wherein the nozzle needle (13) is lifted from a nozzle-needle sealing seat (14) as a function of the pressure in the control space (38). Provided between injector housing (10) and nozzle body (12) is an intermediate plate (40) having a passage (50) which hydraulically connects the coupling space (32) to the control space (38). The passage (50) contains a hydraulic choke (51) which has at least two sections (52, 53) having different cross sections of flow, wherein the section (52) having the smaller cross section of flow faces the coupling space (32) and the section (53) having the larger cross section of flow faces the control space (38).

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