

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1339970 A2 20030903 (DE)**

Application  
**EP 01999741 A 20011130**

Priority  
• DE 0104505 W 20011130  
• DE 10060290 A 20001205

Abstract (en)  
[origin: WO0246604A2] A fuel injection valve (1), especially for direct injection of fuel into a combustion chamber of a mixture-compression, spark ignition internal combustion engine, comprises an actuator (10) and a valve needle (3) which is actuated by said actuator (10) and which activates a valve closing body (4). Said valve-closing body forms a sealed seat, together with a valve seat surface (6) which is configured on a valve seat body (5). The inventive valve also comprises several injection openings (7) which are configured in the valve seat body (5), and a damping element (37) is located in a recess (36) of the valve-closing body (4) on the off-flow side.

IPC 1-7  
**F02M 61/10**; **F02M 61/18**; **F02M 51/06**; **F02M 45/08**

IPC 8 full level  
**F02M 61/10** (2006.01); **F02M 45/08** (2006.01); **F02M 51/06** (2006.01); **F02M 61/12** (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01); **F02M 61/20** (2006.01); **F02B 75/12** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP KR US)  
**F02M 45/086** (2013.01 - EP US); **F02M 51/0671** (2013.01 - EP US); **F02M 51/0685** (2013.01 - EP US); **F02M 61/12** (2013.01 - EP US); **F02M 61/18** (2013.01 - EP KR US); **F02M 61/1813** (2013.01 - EP US); **F02M 61/182** (2013.01 - EP US); **F02M 61/188** (2013.01 - EP US); **F02M 61/20** (2013.01 - EP US); **F02B 2075/125** (2013.01 - EP US); **F02M 2200/306** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US)

Citation (search report)  
See references of WO 0246604A2

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