

Title (en)  
FUEL-INJECTION VALVE AND A METHOD FOR SETTING THE SAME

Title (de)  
BRENNSTOFFEINSPRITZVENTIL UND VERFAHREN ZU DESSEN EINSTELLUNG

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT ET PROCEDE DE REGLAGE

Publication  
**EP 1402171 B1 20041208 (DE)**

Application  
**EP 02742720 A 20020507**

Priority  
• DE 0201643 W 20020507  
• DE 10130239 A 20010622

Abstract (en)  
[origin: DE10130239A1] The invention relates to a fuel-injection valve (1) for fuel-injection systems of internal combustion engines, in particular for directly injecting fuel into the combustion chamber of an internal combustion engine. Said valve comprises an actuator (10), a valve needle (3), which co-operates with the actuator (10) and is impinged by a return spring (23) in the closing direction, for actuating a valve closing body (4) that forms a seal seat with a valve-seat surface (6), and a setting sleeve (24), which impinges the return spring (23) with a pre-tension. The setting sleeve (24) is well-shaped and has an excentric bore (38) in the base (37), said bore forming a variable overlap with an excentric bore (36) in the base (35) of a similarly well-shaped internal sleeve (34) that can be inserted into the setting sleeve (24).

IPC 1-7  
**F02M 51/06**; **F02M 61/16**

IPC 8 full level  
**F02M 51/06** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP KR US)  
**F02M 51/0671** (2013.01 - EP KR US); **F02M 61/168** (2013.01 - EP KR US); **F02M 2200/24** (2013.01 - EP KR US);  
**F02M 2200/28** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**DE 10130239 A1 20030102**; DE 50201739 D1 20050113; EP 1402171 A1 20040331; EP 1402171 B1 20041208; JP 2004521251 A 20040715;  
JP 4221287 B2 20090212; KR 20030036710 A 20030509; US 2004011898 A1 20040122; US 6915960 B2 20050712; WO 03001050 A1 20030103

DOCDB simple family (application)  
**DE 10130239 A 20010622**; DE 0201643 W 20020507; DE 50201739 T 20020507; EP 02742720 A 20020507; JP 2003507413 A 20020507;  
KR 20037002454 A 20030220; US 36208403 A 20030730