

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1364116 B1 20051102 (DE)**

Application  
**EP 02717970 A 20020225**

Priority  
• DE 0200661 W 20020225  
• DE 10108945 A 20010224

Abstract (en)  
[origin: WO02068810A1] A fuel injection valve (1), in particular for the direct injection of fuel into the combustion chamber of a mixture-compressing, spark-ignited, internal combustion engine, comprises an armature (20), co-operating with a magnet coil (10) and a valve needle (3), positively connected to the armature (20), on which a valve closing body (4) is provided, which forms a sealing seat together with a valve seat surface (6). The valve needle (3) comprises a collar-shaped armature stop (32) at a supply end, formed in one piece therewith and against which the armature (20) acts, whereby an engaging flange (21) on the armature (20) extends through, such that the engaging flange (21) may be introduced into the supply end of the valve needle (3) and may be connected thereto.

IPC 1-7  
**F02M 51/06**

IPC 8 full level  
**F02M 51/06** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP KR US)  
**F02M 51/06** (2013.01 - KR); **F02M 51/0685** (2013.01 - EP US); **F02M 2200/306** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 02068810 A1 20020906**; CN 100402831 C 20080716; CN 1457391 A 20031119; DE 10108945 A1 20020905; DE 50204771 D1 20051208; EP 1364116 A1 20031126; EP 1364116 B1 20051102; JP 2004518858 A 20040624; JP 4335528 B2 20090930; KR 100851767 B1 20080813; KR 20020089501 A 20021129; US 2003160117 A1 20030828; US 6932283 B2 20050823

DOCDB simple family (application)  
**DE 0200661 W 20020225**; CN 02800395 A 20020225; DE 10108945 A 20010224; DE 50204771 T 20020225; EP 02717970 A 20020225; JP 2002567690 A 20020225; KR 20027013982 A 20021018; US 25829903 A 20030401