

Title (en)
INJECTION VALVE

Title (de)
EINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION

Publication
EP 1373714 A1 20040102 (DE)

Application
EP 02737752 A 20020326

Priority
• DE 0201092 W 20020326
• DE 10115649 A 20010329

Abstract (en)
[origin: US2003168527A1] An injection valve, in particular an injection valve for an internal combustion engine, is proposed, which includes at least a nozzle body (4), in which a nozzle needle (5) is guided axially displaceably, and an at least one-piece retaining body (7), in which means for actuating the nozzle needle (5) are disposed. On its circumferential surface, the nozzle body (4) has means (25, 26) for engagement of a centering tool (30)

IPC 1-7
F02M 61/16; **F02M 47/02**

IPC 8 full level
F02M 47/02 (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 61/12** (2006.01); **F02M 61/16** (2006.01); **F02B 3/06** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 47/027 (2013.01 - EP US); **F02M 61/168** (2013.01 - EP US); **F02M 63/0026** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US); **F02M 2200/8092** (2013.01 - EP US); **F02M 2547/003** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
US 2003168527 A1 20030911; **US 7036754 B2 20060502**; AT E475803 T1 20100815; DE 10139622 A1 20021002; DE 10139622 B4 20180614; DE 50214552 D1 20100909; EP 1373714 A1 20040102; EP 1373714 B1 20100728; HU P0302417 A2 20031028; HU P0302417 A3 20070228; JP 2004518895 A 20040624; WO 02079636 A1 20021010

DOCDB simple family (application)
US 29658203 A 20030411; AT 02737752 T 20020326; DE 0201092 W 20020326; DE 10139622 A 20010811; DE 50214552 T 20020326; EP 02737752 A 20020326; HU P0302417 A 20020326; JP 2002578019 A 20020326