

Title (en)
INJECTION VALVE

Title (de)
EINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION

Publication
EP 1567765 A1 20050831 (DE)

Application
EP 03799426 A 20030811

Priority

- DE 0302704 W 20030811
- DE 10250720 A 20021031

Abstract (en)

[origin: WO2004040119A1] The invention concerns an injection valve (1) comprising a valve-control module (2) and an injector module (3) which is connected to said valve-control module and includes an injector needle valve (12) axially mobile in an injector body (13). The valve-control module (2) is adjacent the injector module (3) with a throttle plate (14). An intermediate element is located in the zone of one end of the injector needle valve (12) facing the throttle plate (14). Said intermediate element is compressed on the throttle plate (14) by a spring (18) arranged between the intermediate element (21) and the injector needle valve (12) and said throttle plate biases the injector needle valve (12) in the closure direction with axial force. The inventive injection valve further comprises at least one outlet throttle (24) in the throttle plate (14) and at least one intake throttle (23) connected to a high pressure zone (9), said throttles emerging into a valve-control chamber (22). The throttle plate has on its side facing the injector module (3) a closed projecting portion (26) which defines an inner chamber (25), constituting a delimitation of the valve-control chamber (22) wherein is located the intake throttle (23).

IPC 1-7
F02M 47/02; F02M 59/46

IPC 8 full level
F02M 47/02 (2006.01); **F02M 59/46** (2006.01); **F02M 61/10** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 47/027 (2013.01 - EP US); **F02M 61/10** (2013.01 - EP US); **F02M 2200/28** (2013.01 - EP US); **F02M 2200/703** (2013.01 - EP US);
F02M 2547/001 (2013.01 - EP); **F02M 2547/003** (2013.01 - EP US)

Citation (search report)
See references of WO 2004040119A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 2004040119 A1 20040513; CN 1639456 A 20050713; DE 10250720 A1 20040513; DE 50305301 D1 20061116; EP 1567765 A1 20050831;
EP 1567765 B1 20061004; JP 2006504893 A 20060209; US 2006151637 A1 20060713

DOCDB simple family (application)
DE 0302704 W 20030811; CN 03804922 A 20030811; DE 10250720 A 20021031; DE 50305301 T 20030811; EP 03799426 A 20030811;
JP 2004547378 A 20030811; US 53330805 A 20051116