

Title (en)

ELECTROMAGNETICALLY ACTUATED VALVE

Title (de)

ELEKTROMAGNETISCH BETÄIGBARES VENTIL

Title (fr)

SOUPAPE A COMMANDE ELECTROMAGNETIQUE

Publication

**EP 0717816 B1 19990908 (DE)**

Application

**EP 95919330 A 19950526**

Priority

- DE 9500692 W 19950526
- DE 4420176 A 19940609

Abstract (en)

[origin: DE4420176A1] In prior art solenoid valves, the valve needle consists of a tubular armature, a sleeve-like connection tube and an obturator element. Fuel can thus flow inside the valve needle up to the obturator element to emerge through lateral bores in the needle in the direction of the valve seat. The valve needle (34) proposed is characterized in that the element (32) connecting the armature (36) and the obturator element (37) is made from a semifinished shaped section. Together, the shaped-section connection element (32) and the armature (36) form flow channels. The fuel flowing through the flow channels passes, downstream of the channels, outside the connection element (32) to the valve seat (22). No fuel outlets are therefore necessary in the connection element (32). The valve needle is particularly suitable for use in fuel-injection valves in mixture-compressing spark-ignition internal-combustion engines.

IPC 1-7

**F02M 51/06; F02M 61/16**

IPC 8 full level

**F02M 51/06** (2006.01); **F02M 61/10** (2006.01); **F02M 61/16** (2006.01); **F16K 31/06** (2006.01)

CPC (source: EP KR US)

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**DE 4420176 A1 19951214**; BR 9506256 A 19970812; CN 1064741 C 20010418; CN 1129472 A 19960821; CZ 286185 B6 20000216; CZ 37296 A3 19960717; DE 59506783 D1 19991014; EP 0717816 A1 19960626; EP 0717816 B1 19990908; ES 2138204 T3 20000101; JP H09501480 A 19970210; KR 100378456 B1 20030602; KR 960704153 A 19960831; RU 2138722 C1 19990927; US 5820031 A 19981013; WO 9533923 A1 19951214

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