

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1049871 A1 20001108 (DE)

Application
EP 99953590 A 19990825

Priority

- DE 9902657 W 19990825
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- DE 19927196 A 19990615

Abstract (en)
[origin: US6296199B1] A fuel-injection valve, in particular, a high-pressure injection valve, for injecting fuel directly into a combustion chamber of a mixture-compressing internal combustion engine with externally supplied ignition is distinguished by the fact that a guide and seating area formed by three disc-shaped elements is provided at a downstream end of the valve. A swirl element is embedded between a guide element and a valve seat element. The guide element is used to guide a valve needle which passes through it and can move in the axial direction, while a valve closing segment of the valve interacts with a valve seat surface of the valve seat element. The swirl element has an inner opening area with multiple swirl channels. The three disc-shaped elements are permanently connected to each other, forming a positive-locking joint.

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IPC 8 full level
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F02M 51/0671 (2013.01 - EP US); **F02M 61/162** (2013.01 - EP US); **F02M 61/18** (2013.01 - EP US)

Citation (search report)
See references of WO 0012891A1

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US 6296199 B1 20011002; AU 1028700 A 20000321; AU 741787 B2 20011206; BR 9906683 A 20001017; CN 1104555 C 20030402; CN 1275185 A 20001129; EP 1049871 A1 20001108; EP 1049871 B1 20030730; ES 2205895 T3 20040501; JP 2002523682 A 20020730; JP 4593784 B2 20101208; RU 2227226 C2 20040420; WO 0012891 A1 20000309

DOCDB simple family (application)
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