

Title (en)

Fuel injection valve for internal combustion engines

Title (de)

Kraftstoffeinspritzventil für Verbrennungsmotor

Title (fr)

Soupape d'injection de combustible pour moteurs à combustion interne

Publication

**EP 1170500 A1 20020109 (EN)**

Application

**EP 00202331 A 20000703**

Priority

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Abstract (en)

The valve comprises a fuel passage port (20) in the form of a seat for a valving element, and an axially movable valving element (30) having a surface (31) arranged to act on said port (20) to close its passage; the valving element (30) being subjected to alternating axial movements by which it is urged into contact with the passage port (20) to close it, and alternately to open it; the valve comprises at least one guide element (50, 51) having an outer peripheral edge (50', 51') secured to a fixed part of the valve and an inner edge (50'', 51'') secured to the valving element (30), and positioned with its axis substantially coinciding with the axis of the valving element, to prevent the valving element (30) undergoing rotations about its axis and radial movements, said guide element (50, 51) being deformable by flexure in a generic axial plane in such a manner as not to create substantial resistance to the axial movement of the valving element (30). <IMAGE>

IPC 1-7

**F02M 51/06**

IPC 8 full level

**F02M 51/06** (2006.01); **F02M 61/04** (2006.01); **F02M 61/12** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP)

**F02M 51/0667** (2013.01); **F02M 61/04** (2013.01); **F02M 61/12** (2013.01); **F02M 61/20** (2013.01)

Citation (search report)

- [XA] US 4365747 A 19821228 - KNAPP HEINRICH, et al
- [XA] US 3702683 A 19721114 - STURMER HANS
- [X] US 4585176 A 19860429 - KUBACH HANS [DE], et al
- [XA] DE 3704541 A1 19880901 - VDO SCHINDLING [DE]
- [XA] DE 3520154 A1 19861211 - BOSCH GMBH ROBERT [DE]
- [XA] US 4795098 A 19890103 - KIRCHNER MARCEL [DE], et al

Cited by

CN106224148A; EP1431569A3; CN106050501A; WO2004042486A1

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