

Title (en)

Fluid control valve, valve support member therefor and idling air amount control apparatus for automobile using the fluid control valve.

Title (de)

Fluidregelventil, Lagerung hierfür und Regeleinrichtung für die Leerlaufuftmenge für ein Automobil mit Verwendung des Fluidregelventils.

Title (fr)

Soupape de réglage d'un fluide, support pour celle-ci et appareil de réglage pour le débit d'air du ralenti pour une automobile utilisant la soupape de réglage d'un fluide.

Publication

**EP 0450633 A1 19911009 (EN)**

Application

**EP 91105372 A 19910405**

Priority

JP 9034990 A 19900406

Abstract (en)

A fluid control valve which regulates a flow rate of a liquid and, more particularly, which controls a fluid by axially moving a valve body fixed to a valve shaft (105). The fluid control valve comprises a device (13) for absorbing vibrations of the valve shaft (105) in a direction perpendicular to the axis thereof. More specifically, there is provided a device (13) for exerting a pressing force to lightly press the valve shaft (105) against the inner walls of bearings (106, 129). Alternatively, the valve shaft (105) may be held between a plurality of elastic plates fixed on the inner surface of a valve casing (101). A support member for such a valve shaft (105) used in the fluid control valve comprises a disk (16) having a center hole through which the valve shaft (105) is inserted, an annular member (15) formed around the disk (16), and an elastic piece (14) one end of which is secured to the disk (16) or the annular member (15), while the other end of the elastic piece (14) is extended to the vicinity of the center of the hole, so that the annular member (15) is fixed on the inner surface of the valve casing (101), and that the distal end of the elastic piece (14) is pressed against the valve shaft (105) which is extended through the hole. According to the invention, vibrations of the center shaft (105) in radial directions can be suppressed to prevent unstable movements of the valve (104). <IMAGE>

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IPC 8 full level

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CPC (source: EP KR)

**F02M 3/075** (2013.01 - EP); **F02M 69/32** (2013.01 - KR)

Citation (search report)

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DE GB

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**EP 0450633 A1 19911009**; **EP 0450633 B1 19950712**; DE 69111111 D1 19950817; DE 69111111 T2 19960118; JP 2620571 B2 19970618; JP H03290056 A 19911219; KR 0175323 B1 19990320; KR 910018707 A 19911130

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