

Title (en)

Fuel injector equipped with a metering servovalve for an internal-combustion engine

Title (de)

Brennstoffeinspritzvorrichtung mit Mess-Servoventil für einen Verbrennungsmotor

Title (fr)

Injecteur de carburant doté d'une servocommande de mesure pour moteur à combustion interne

Publication

EP 2292918 A1 20110309 (EN)

Application

EP 09425297 A 20090723

Priority

EP 09425297 A 20090723

Abstract (en)

A fuel injector (1) has an injector body (2) and a control rod (10), which is movable in the injector body (2) along an axis (3) for controlling opening/closing of a nozzle that injects fuel into a cylinder of an engine; the injector body (2) houses a metering servovalve (5) having a control chamber (26), which is axially delimited by the control rod (10) and communicates with an inlet (4) and with a discharge duct (42); the metering servovalve (5) is provided with an open/close element (47), which is axially slidable on an axial guide (38), from which the discharge duct (42) gives out, to open and close the discharge duct (42) and consequently vary the pressure in the control chamber (26); the discharge duct (42) has at least two calibrated restrictions (53, 44) which have calibrated passage sections and are set in series with respect to one another for splitting the pressure drop along the discharge duct (42); the hole or holes that defines/define the last calibrated restriction is/are divergent.

IPC 8 full level

F02M 47/02 (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02M 47/027 (2013.01); **F02M 63/004** (2013.01); **F02M 63/007** (2013.01); **F02M 2200/28** (2013.01); **F02M 2547/003** (2013.01)

Citation (applicant)

- EP 1612403 A1 20060104 - FIAT RICERCHE [IT]
- EP 08425460 A 20080627

Citation (search report)

- [Y] WO 03071122 A1 20030828 - CRT COMMON RAIL TECH AG [CH], et al
- [Y] EP 1985840 A1 20081029 - FIAT RICERCHE [IT]
- [Y] EP 1126160 A2 20010822 - SIEMENS AG [DE]
- [Y] DE 102007009165 A1 20080828 - BOSCH GMBH ROBERT [DE]
- [Y] EP 1916411 A2 20080430 - BOSCH GMBH ROBERT [DE]
- [Y] EP 1306545 A2 20030502 - BOSCH GMBH ROBERT [DE]

Cited by

CN106523222A; RU197666U1; DE102014000451A1; US8690075B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

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DOCDB simple family (application)

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