

Title (en)

Solenoid actuated fluid injection valve

Title (de)

Elektromagnetisch betätigtes Flüssigkeitsinjektionsventil

Title (fr)

Soupape d'injection de fluide actionnée par solénoïde

Publication

EP 2985445 A1 20160217 (EN)

Application

EP 14181077 A 20140814

Priority

EP 14181077 A 20140814

Abstract (en)

A valve assembly (100) with a valve with a needle (115) and a first spring (135) for pressing said needle (115) towards a valve seat (120) is disclosed. The valve assembly (100) further comprises an electromagnetic actuator with an armature (165) being slidably positioned on said needle (115). A stopper (170) is rigidly attached to said needle (115) or comprised by said needle (115) and configured to engage with said armature (165) when the armature (165) moves towards the pole piece (140) of the actuator. The valve assembly (100) comprises a second spring (180) for biasing said armature (165) away from the stopper (170), the second spring (180) comprising a wave spring or a Belleville spring.

IPC 8 full level

F02M 51/06 (2006.01)

CPC (source: EP)

F02M 51/0685 (2013.01); **F02M 2200/26** (2013.01)

Citation (applicant)

- EP 2336544 A1 20110622 - DELPHI TECH INC [US]
- EP 2634413 A1 20130904 - BOSCH GMBH ROBERT [DE]

Citation (search report)

- [XYI] WO 02068811 A1 20020906 - BOSCH GMBH ROBERT [DE], et al
- [XYI] US 2011278368 A1 20111117 - HORNBY MICHAEL J [US]
- [XYI] EP 2535552 A1 20121219 - CONTINENTAL AUTOMOTIVE GMBH [DE]
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- [YD] EP 2634413 A1 20130904 - BOSCH GMBH ROBERT [DE]
- [Y] DE 102012207406 A1 20131107 - BOSCH GMBH ROBERT [DE]
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- [A] US 6367769 B1 20020409 - REITER FERDINAND [DE]
- [A] WO 9210665 A1 19920625 - SIEMENS AG [DE]

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Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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