

Title (en)
FLUID INJECTOR WITH A SPRING CHAMBER

Title (de)
EINSPRITZVENTIL MIT FEDERKAMMER

Title (fr)
INJECTEUR DE FLUIDE AVEC UNE CHAMBRE À RESSORT

Publication
EP 3059436 A1 20160824 (EN)

Application
EP 15155611 A 20150218

Priority
EP 15155611 A 20150218

Abstract (en)
Injector (1) for injecting fluid with an injector body (3), a valve assembly (5) comprising a valve body (9) and a valve needle (11), the valve body (9) having a longitudinal axis (13) and comprising a cavity (15) with a valve seat (17), an electromagnetic actuator assembly (7) comprising an armature (21), a spring chamber (27) located in the cavity (15), being fluid-tightly insulated from an exterior of the spring chamber (27), and a calibration spring (29) for axially biasing the valve needle (11) away from the closing position, being received in the spring chamber (27), being mechanically coupled to the valve needle (11) to bias the valve needle (11) with a first axial end (33) and being fixedly coupled to the injector body (3) with a second axial end (35) such that a position of the second axial end (35) is independent of pressure of fluid in the cavity (15).

IPC 8 full level
F02M 51/06 (2006.01); **F02M 55/00** (2006.01); **F02M 61/06** (2006.01); **F02M 61/08** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP)
F02M 51/0653 (2013.01); **F02M 51/066** (2013.01); **F02M 55/008** (2013.01); **F02M 61/06** (2013.01); **F02M 61/08** (2013.01); **F02M 61/168** (2013.01); **F02M 2200/16** (2013.01); **F02M 2200/502** (2013.01); **F02M 2200/507** (2013.01); **F02M 2200/8092** (2013.01)

Citation (search report)
• [X] EP 1988278 A1 20081105 - MAGNETI MARELLI POWERTRAIN SPA [IT]
• [A] WO 2013064523 A1 20130510 - CONTINENTAL AUTOMOTIVE GMBH [DE]
• [A] EP 2333297 A1 20110615 - CONTINENTAL AUTOMOTIVE GMBH [DE]

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

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