

Title (en)

Method and arrangement for determining a mass flow of an injection process of an injection valve

Title (de)

Verfahren und Anordnung zur Bestimmung eines Massenstroms eines Einspritzverfahrens eines Einspritzventils

Title (fr)

Procédé et agencement pour déterminer un débit de masse d'un procédé d'injection d'une soupape d'injection

Publication

**EP 2295788 A1 20110316 (EN)**

Application

**EP 09010194 A 20090806**

Priority

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Abstract (en)

An arrangement comprises a test volume (22) and a cut-off valve (24). The test volume (22) is hydraulically arranged between the injection valve (20) and the cut-off valve (24). The cut-off valve (24) is hydraulically coupled to a fluid line (26). The method comprises the following steps: - opening the cut-off valve (24) while the injection valve (20) is closed, - closing the cut-off valve (24), - determining a first value (P\_1) of the pressure in the test volume (22), - opening the injection valve (20) while the cut-off valve (24) is closed, - closing the injection valve (20), - determining a second value (P\_2) of the pressure in the test volume (22), - determining the value (#P) of the pressure difference between the first value (P\_1) and the second value (P\_2), and - determining the mass flow (MFF) of the injection process of the injection valve (20) depending on the value (#P) of the pressure difference in the test volume (22).

IPC 8 full level

**F02M 65/00** (2006.01)

CPC (source: EP)

**F02M 65/00** (2013.01)

Citation (search report)

- [X] DE 102007028900 A1 20081224 - CONTINENTAL AUTOMOTIVE GMBH [DE]
- [X] WO 2004040129 A1 20040513 - BOSCH GMBH ROBERT [DE], et al
- [I] DE 4130394 A1 19920319 - NIPPON DENSO CO [JP]
- [I] JP S614860 A 19860110 - MITSUBISHI HEAVY IND LTD
- [A] EP 1148327 A1 20011024 - ASSEMBLY TECHNOLOGY & TEST LTD [GB]

Cited by

DE102018203542A1; WO2019166181A1

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

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