

Title (en)

Method and apparatus for operating a fuel supply system

Title (de)

Verfahren und Vorrichtung zum Betreiben einer Kraftstoffversorgungsanlage

Title (fr)

Procédé et dispositif de commande d'un système d'alimentation de carburant

Publication

EP 2587034 A1 20130501 (EN)

Application

EP 11186819 A 20111027

Priority

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Abstract (en)

The fuel supply system (10) comprises at least one injection valve (26) comprising a solenoid actuator. Furthermore the fuel supply system (10) comprises a high-pressure pump (20) delivering fuel with a given pressure in a fuel line or a manifold (24), the fuel line or the manifold (24) respectively being hydraulically coupled with an outlet of the high-pressure pump (20) and an inlet of the injection valve (26). The method comprises the following steps: The solenoid actuator is activated according to a predetermined activation signal with a given activation period (Ti) for effecting a fluid flow out of an injection nozzle of the injection valve (26). An actuator voltage (U_C) is captured at least in a closing phase (T phase) which starts after the activation period (Ti), wherein the actuator voltage (U_C) represents a voltage induced in the solenoid actuator. It is detected if the fuel pressure of the fuel delivered by the high-pressure pump (20) is within a given range depending on the captured actuator voltage (U_C) and a first signal is generated depending on the detection result. Additionally or alternatively the fuel pressure of the fuel delivered by the high-pressure pump (20) is determined depending on the captured actuator voltage (U_C) and a second signal is generated depending on the determined fuel pressure.

IPC 8 full level

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CPC (source: EP)

F02D 41/20 (2013.01); **F02D 41/22** (2013.01); **F02D 41/3854** (2013.01); **F02D 2041/2051** (2013.01); **F02D 2200/0604** (2013.01)

Citation (search report)

- [XA] DE 102009043124 A1 20110331 - CONTINENTAL AUTOMOTIVE GMBH [DE]
- [A] DE 102006035225 A1 20070201 - ETO MAGNETIC KG [DE]
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- [A] EP 2014900 A1 20090114 - BOSCH GMBH ROBERT [DE]

Cited by

CN106246382A; US10072596B2

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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