

Title (en)

Malfunction detection device for engine and malfunction detection method for engine

Title (de)

Fehlfunktionserkennungsvorrichtung für Motoren und Fehlfunktionserkennungsverfahren für Motoren

Title (fr)

Dispositif de détection de dysfonctionnement pour moteur et procédé de détection de dysfonctionnement pour moteur

Publication

**EP 2546501 A1 20130116 (EN)**

Application

**EP 12175666 A 20120710**

Priority

JP 2011153088 A 20110711

Abstract (en)

A malfunction detection device for an engine detects whether a pressure reducing valve (6) that discharges fuel from a fuel system of an engine to reduce fuel pressure in the fuel system is stuck closed. The malfunction detection device is configured to provide a valve opening command to open the pressure reducing valve (6) after the engine is stopped, detect an amount of reduction in the fuel pressure per unit time before the valve opening command is provided and an amount of reduction in the fuel pressure per unit time after the valve opening command is provided, and determine whether the pressure reducing valve (6) is stuck closed based on the detected amount of reduction in the fuel pressure per unit time before the valve opening command is provided and the detected amount of reduction in the fuel pressure per unit time after the valve opening command is provided.

IPC 8 full level

**F02D 41/22** (2006.01); **F02D 41/38** (2006.01)

CPC (source: EP)

**F02D 41/22** (2013.01); **F02D 41/221** (2013.01); **F02D 41/3863** (2013.01); **F02D 2041/224** (2013.01)

Citation (applicant)

JP 2006257883 A 20060928 - DENSO CORP

Citation (search report)

- [X] DE 102006000117 A1 20061130 - DENSO CORP [JP]
- [A] DE 102009002945 A1 20091203 - DENSO CORP [JP]
- [A] US 2009164086 A1 20090625 - GEVECI MERT [US], et al
- [A] DE 102005028137 A1 20061228 - BOSCH GMBH ROBERT [DE]

Cited by

CN113482823A; CN113803184A

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)

**EP 2546501 A1 20130116**; JP 2013019311 A 20130131; JP 5454522 B2 20140326

DOCDB simple family (application)

**EP 12175666 A 20120710**; JP 2011153088 A 20110711