Title (en)

A device for detecting failure in a high pressure fuel supply system

Title (de)

Vorrichtung zur Erkennung von Fehlern in einer Hochdruck-Kraftstoffeinspritzanlage

Title (fr)

Dispositif de detection de défaut dans un système d'alimentation en carburant haute pression

Publication

EP 1201905 A2 20020502 (EN)

Application

EP 01125541 A 20011025

Priority

JP 2000329448 A 20001027

Abstract (en)

Fuel of a high pressure is supplied from a high-pressure fuel injection pump 5 into a common-rail 3, and is, then, supplied to the fuel injection valves 1 from the common-rail. A control circuit (ECU) 20 compares a change in the fuel pressure in the common-rail detected by a fuel pressure sensor 31 during a judging period with an estimated value of change in the pressure during the judging period to judge the leakage of fuel from the common-rail. The judging period is set to take place in a period in which it is estimated that the fuel flows in the least amount into a pressure-accumulating chamber in the former half or in the latter half of the fuel supply stroke of the fuel pump. This minimizes the effect of fuel flowing into the common-rail, and improves the accuracy of leakage detection. <IMAGE>

IPC 1-7

F02D 41/38; F02D 41/22

IPC 8 full level

F02D 45/00 (2006.01); **F02D 41/22** (2006.01); **F02D 41/38** (2006.01)

CPC (source: EP)

F02D 41/22 (2013.01); **F02D 41/3809** (2013.01); F02D 2041/224 (2013.01); F02D 2041/225 (2013.01)

Citation (applicant)

JP H10299557 A 19981110 - TOYOTA MOTOR CORP

Cited by

EP1867859A4; CN110121589A; CN111765014A; DE10334776B4; EP1526269A3; CN111237072A; US2012245819A1; US9127611B2; CN115126637A; DE102010027675B4; CN109113882A; DE112008001486B4; US7937988B2; WO2006053852A1; WO2008147319A1

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