

Title (en)
Method and determining abnormality in high-pressure fuel injection system

Title (de)
Fehlererkennungverfahren für ein Hochdruck-Kraftstoffeinspritzsystem

Title (fr)
Méthode d'identification d'anomalies dans un système d'injection à haute pression

Publication
EP 1039117 A3 20030319 (EN)

Application
EP 00105642 A 20000316

Priority
JP 8382499 A 19990326

Abstract (en)
[origin: EP1039117A2] The present invention proposes a method of abnormality determination for a high-pressure fuel injection system, which is capable of enlarging a range where a fuel force-feed timing or a fuel injection timing can be changed, and of determining occurrence of an abnormality with high precision. An electronic control unit (ECU)(60) detects a change in fuel pressure in a common rail (20) (rail pressure change amount), estimates a change in rail pressure based on an injection command value, a force-feed command value and the like, and makes a first abnormality determination based on the detected value and the estimated value. If occurrence of an abnormality is confirmed in the first abnormality determination, the ECU (60) restricts a timing for starting force-feeding of fuel such that only fuel injection is carried out in a second determination period. The ECU (60) then compares a detected value of a change in rail pressure with a value of a change in rail pressure estimated based on the injection command value and the like, and additionally makes a second abnormality determination. <IMAGE>

IPC 1-7
F02D 41/22; **F02D 41/38**

IPC 8 full level
F02D 41/22 (2006.01); **F02D 41/38** (2006.01); **F02D 45/00** (2006.01); **F02M 63/00** (2006.01); **F02M 65/00** (2006.01)

CPC (source: EP)
F02D 41/22 (2013.01); **F02D 41/3809** (2013.01); **F02D 2041/224** (2013.01); **F02D 2200/0604** (2013.01)

Citation (search report)
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• [A] US 5708202 A 19980113 - AUGUSTIN ULRICH [DE], et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 05 31 May 1996 (1996-05-31)

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Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1039117 A2 20000927; **EP 1039117 A3 20030319**; **EP 1039117 B1 20041020**; DE 60014997 D1 20041125; DE 60014997 T2 20050310; ES 2228321 T3 20050416; JP 2000282932 A 20001010; JP 4158272 B2 20081001

DOCDB simple family (application)
EP 00105642 A 20000316; DE 60014997 T 20000316; ES 00105642 T 20000316; JP 8382499 A 19990326