

Title (en)
Apparatus and method for diagnosing fuel supply system of internal combustion engine

Title (de)
Vorrichtung und Verfahren zur Diagnose eines Kraftstoffversorgungssystems

Title (fr)
Dispositif et procédé de diagnostic d'un système d'alimentation de carburant

Publication
EP 1215386 A2 20020619 (EN)

Application
EP 01129734 A 20011213

Priority
JP 2000381626 A 20001215

Abstract (en)
Apparatus and method for diagnosing a fuel supply system of an internal combustion engine wherein a compensation amount (qcy) for each cylinder is determined on the basis of a deviation (DNE) of an actual operating state of the engine with respect to a desired operating state thereof, and the fuel supply system is feedback-controlled by compensating a commanded value (QFIN) of a quantity of injection of a fuel by the fuel supply system into the internal combustion engine, according to the compensation amount. The apparatus and method include respectively include a diagnosing device (52) and a diagnostic step for effecting a diagnostic compulsory adjustment (in steps S590 and S600) of an operating condition of the fuel supply system for each cylinder when the absolute value of the compensation amount (qcy) exceeds a predetermined threshold (A) (when affirmative decision is obtained in step S550), and for diagnosing the fuel supply system on the basis of a speed variation of the engine cause by the adjustment. <IMAGE>

IPC 1-7
F02D 41/22; **F02D 41/34**; **F02D 41/14**; **F02D 41/38**

IPC 8 full level
F02D 45/00 (2006.01); **F02D 41/00** (2006.01); **F02D 41/14** (2006.01); **F02D 41/22** (2006.01); **F02D 41/34** (2006.01); **F02D 41/38** (2006.01)

CPC (source: EP)
F02D 41/0085 (2013.01); **F02D 41/1498** (2013.01); **F02D 41/22** (2013.01); **F02D 41/3809** (2013.01); **F02D 2041/224** (2013.01); **F02D 2200/1015** (2013.01)

Citation (applicant)
JP 2907001 B2 19990621

Cited by
EP2184474A4; EP2065588A1; FR2910552A1; DE102005034449A1; EP2305989A4; DE102005034449B4; EP1491751A1; US10227944B2; US9068524B2; US6907861B2; WO2010089236A1; WO2008074881A1

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
EP 1215386 A2 20020619; **EP 1215386 A3 20040121**; **EP 1215386 B1 20060830**; DE 60122657 D1 20061012; DE 60122657 T2 20070927; ES 2270944 T3 20070416; JP 2002188501 A 20020705; JP 4306123 B2 20090729

DOCDB simple family (application)
EP 01129734 A 20011213; DE 60122657 T 20011213; ES 01129734 T 20011213; JP 2000381626 A 20001215