

Title (en)  
Operating condition learning control device for internal combustion engine

Title (de)  
Lernende Steuereinrichtung der Betriebsbedingung eines Verbrennungsmotors

Title (fr)  
Appareil de commande à apprentissage des conditions de service pour moteur à combustion interne

Publication  
**EP 1441118 A2 20040728 (EN)**

Application  
**EP 04000996 A 20040119**

Priority  
JP 2003011037 A 20030120

Abstract (en)  
Learning control is carried out to learn and correct degradation in the functionality of a fuel supply pump (3) having a solenoid coil (6) for an engine. During the learning control, a temporary present learned value (ITL) to be utilized in the calculation of a target value of driving current applied to the solenoid coil is calculated. Thereafter, a final present learned value (IFL) is calculated by adding up a previous learned value (IPL) and the temporary present learned value (ITL). The final present learned value (IFL) is not immediately utilized in the calculation of the target value of driving current. Instead, the final present learned value is just stored in a memory in place of the previous learned value when the engine is stopped.

IPC 1-7  
**F02D 41/04; F02D 41/24; F02D 41/14**

IPC 8 full level  
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CPC (source: EP)  
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**F02D 2250/31** (2013.01)

Citation (applicant)  
• JP 2001082230 A 20010327 - DENSO CORP  
• GB 2269028 A 19940126 - FUJI HEAVY IND LTD [JP]

Cited by  
CN114183267A; US2014216408A1; US9309828B2

Designated contracting state (EPC)  
DE FR IT

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**EP 1441118 A2 20040728; EP 1441118 A3 20080514**; JP 2004225555 A 20040812; JP 4207580 B2 20090114

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