

Title (en)

THROTTLE OPENING ESTIMATION METHOD AND ECU (ELECTRONIC CONTROL UNIT)

Title (de)

DROSSEL ÖFFNUNGSSCHÄTZUNGSVERFAHREN UND ELEKTRONISCHE STEUEREINHEIT

Title (fr)

PROCEDE D'ESTIMATION D'OUVERTURE DU PAPILLON DES GAZ ET UNITE DE COMMANDE ELECTRONIQUE

Publication

**EP 1541847 A1 20050615 (EN)**

Application

**EP 03797576 A 20030911**

Priority

- JP 0311610 W 20030911
- JP 2002275633 A 20020920

Abstract (en)

The vertical axis represents intake pipe pressure in an intake pipe (101), and the horizontal axis, time (or engine stroke). An amount of air leaking and incoming form a throttle valve (102) varies depending on an extent of opening of the throttle valve (102). An intake pipe pressure is measured at one point where a crank angle (crank cycle) of a crank or an engine stroke is synchronous with the measurement, and opening of the throttle valve (102) is estimated based on the intake pipe pressure measured. Thus throttle opening can be obtained without TPS (Throttle Position Sensor). Further, a value obtained by TPS can be corrected to a more accurate value. <IMAGE>

IPC 1-7

**F02D 45/00; F02D 41/00**

IPC 8 full level

**F02D 45/00** (2006.01); **F02D 11/10** (2006.01); **F02D 41/04** (2006.01); **F02D 41/18** (2006.01)

CPC (source: EP KR)

**F02D 11/106** (2013.01 - EP); **F02D 41/00** (2013.01 - KR); **F02D 41/182** (2013.01 - EP); **F02D 45/00** (2013.01 - KR);  
**F02D 2200/0402** (2013.01 - EP); **F02D 2200/0406** (2013.01 - EP)

Citation (search report)

See references of WO 2004027242A1

Cited by

US11415072B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 1541847 A1 20050615**; CN 1682026 A 20051012; JP 2004108341 A 20040408; KR 20050057460 A 20050616; TW 200406536 A 20040501;  
WO 2004027242 A1 20040401

DOCDB simple family (application)

**EP 03797576 A 20030911**; CN 03822238 A 20030911; JP 0311610 W 20030911; JP 2002275633 A 20020920; KR 20057004706 A 20050318;  
TW 92123768 A 20030828