

Title (en)
METHOD AND DEVICE FOR FUEL INJECTION

Title (de)
VERFAHREN UND VORRICHTUNG ZUR KRAFTSTOFFEINSPRITZUNG

Title (fr)
PROCEDE ET DISPOSITIF D'INJECTION DE CARBURANT

Publication
EP 1596055 A4 20081231 (EN)

Application
EP 04706791 A 20040130

Priority
• JP 2004000889 W 20040130
• JP 2003026167 A 20030203

Abstract (en)
[origin: EP1596055A1] There are provided a fuel injection control method and control apparatus enabling a proper amount of fuel injection in response to a required fuel injection quantity from the engine side. A coil current passed through a fuel injection solenoid is measured at one or more points at each of which respective predetermined time has elapsed since the start of driving of the solenoid, and based on a measured value of the coil current, timing for halting the driving of the solenoid is corrected and adjusted. Correction values are determined in advance based on a value of the coil current and required fuel injection quantity for the solenoid or corresponding to various combinations of the value of the coil current and the required fuel injection quantity for the solenoid, and the correction is performed using the correction value selected corresponding to one of the combinations. <IMAGE>

IPC 1-7
F02D 41/20; **F02M 51/02**

IPC 8 full level
F02D 41/20 (2006.01); **F02M 51/04** (2006.01)

CPC (source: EP KR)
F02D 41/062 (2013.01 - EP); **F02D 41/20** (2013.01 - EP KR); **F02M 51/02** (2013.01 - KR); **F02M 51/04** (2013.01 - EP);
F02D 41/126 (2013.01 - EP); **F02D 41/2422** (2013.01 - EP); **F02D 2041/2006** (2013.01 - EP); **F02D 2041/2051** (2013.01 - EP);
F02D 2041/2055 (2013.01 - EP); **F02D 2041/2058** (2013.01 - EP); **F02D 2041/2065** (2013.01 - EP)

Citation (search report)
• [E] EP 1424476 A1 20040602 - MIKUNI KOGYO KK [JP]
• [XA] DE 4308811 A1 19940127 - BOSCH GMBH ROBERT [DE]
• [XA] JP 2000337224 A 20001205 - HITACHI LTD, et al
• [X] EP 1072779 A2 20010131 - HITACHI LTD [JP], et al
• [A] US 4974622 A 19901204 - RADER RICHARD K [US]
• See references of WO 2004070182A1

Cited by
DE102010063097B4; CN102536564A; DE102017116379A1; CN104956056A; DE102013201702C5; EP2865870A4; US11111892B2;
US9719452B2; US10280861B2; US9903305B2; WO2015150049A1; WO2012079970A1; WO2014117940A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1596055 A1 20051116; **EP 1596055 A4 20081231**; CN 100420842 C 20080924; CN 1774570 A 20060517; JP WO2004070182 A1 20060525;
KR 20050097519 A 20051007; TW 200422515 A 20041101; WO 2004070182 A1 20040819

DOCDB simple family (application)
EP 04706791 A 20040130; CN 200480003451 A 20040130; JP 2004000889 W 20040130; JP 2005504800 A 20040130;
KR 20057013793 A 20050727; TW 93102326 A 20040202