

Title (en)

METHOD FOR THE CONTROL AND REGULATION OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUR STEUERUNG UND REGELUNG EINER BRENNKRAFTMASCHINE

Title (fr)

PROCÉDÉ POUR COMMANDER ET RÉGULER UN MOTEUR À COMBUSTION INTERNE

Publication

EP 2494175 B1 20131225 (DE)

Application

EP 10771023 A 20101020

Priority

- DE 102009051390 A 20091030
- EP 2010006418 W 20101020

Abstract (en)

[origin: WO2011050920A1] Disclosed is a method for the control and regulation of an internal combustion engine (1), comprising an independent common rail system on the A-side and an independent common rail system on the B-side. During normal operation, the rail pressure (pCR(A), pCR(B)) is controlled in each common rail system via a low pressure-side suction throttle (4A, 4B) as the first pressure-adjusting element in a rail pressure control loop and, at the same time, the rail pressure (pCR(A), pCR(B)) is subjected to a rail pressure disturbance variable via a high pressure-side pressure control valve (11A, 11B) as a second pressure-adjusting element, by means of which a pressure control valve volume flow is redirected via the high pressure-side pressure control valve (11A, 11B) from the rail (6A, 6B) into a fuel tank (2). The method is characterized in that a first emergency operation is implemented for the common rail system in question when a defective rail pressure sensor (8A, 8B) and a non-defective pressure control valve (11A, 11B) have been detected in said common rail system, while a second emergency operation is implemented for the common rail system in question when a defective rail pressure sensor (8A, 8B) and simultaneously a defective pressure control valve (11A, 11B) have been detected in said common rail system, and wherein the normal operation is implemented for the other, non-defective common rail system.

IPC 8 full level

F02D 41/06 (2006.01); **F02B 75/22** (2006.01); **F02D 41/14** (2006.01); **F02D 41/22** (2006.01)

CPC (source: EP US)

F02B 75/22 (2013.01 - EP US); **F02D 41/221** (2013.01 - EP US); **F02D 41/222** (2013.01 - EP US); **F02D 41/3854** (2013.01 - EP US);
F02D 41/3863 (2013.01 - EP US); **F02M 63/0295** (2013.01 - EP US); **F02D 2041/223** (2013.01 - EP US); **F02D 2041/224** (2013.01 - EP US);
F02D 2041/3881 (2013.01 - EP US); **F02D 2200/0602** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

DE 102009051390 A1 20110505; DE 102009051390 B4 20151022; CN 102762843 A 20121031; CN 102762843 B 20151216;
EP 2494175 A1 20120905; EP 2494175 B1 20131225; US 2012215424 A1 20120823; US 8886439 B2 20141111; WO 2011050920 A1 20110505

DOCDB simple family (application)

DE 102009051390 A 20091030; CN 201080049121 A 20101020; EP 10771023 A 20101020; EP 2010006418 W 20101020;
US 201013505233 A 20101020