

Title (en)

METHOD FOR CONTROLLING A MAGNETIC VALVE OF A RATE CONTROL IN AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUR REGELUNG EINES MAGNETVENTILS EINER MENGENSTEUERUNG IN EINER BRENNKRAFTMASCHINE

Title (fr)

PROCÉDÉ DE RÉGULATION D'UNE ÉLECTROVANNE D'UNE COMMANDE DE QUANTITÉ DANS UN MOTEUR À COMBUSTION INTERNE

Publication

EP 2379868 B1 20130403 (DE)

Application

EP 09796658 A 20091203

Priority

- EP 2009066339 W 20091203
- DE 102008054702 A 20081216

Abstract (en)

[origin: WO2010072536A1] The invention relates to a method for controlling a fuel injection system (10) of an internal combustion engine, wherein the fuel injection system (10) comprises a high pressure pump (16) to which a rate control valve (15) having a magnetic valve (22) for supplying fuel and activated electromagnetically by a coil (21) is allocated, wherein the rate control valve (15) controls the fuel volume conveyed by the high pressure pump (16) and the coil (21) of the magnetic valve (22) is powered according to a target parameter in order to close said valve for supplying fuel to the high pressure pump (16), wherein the target parameter upon closing the magnetic valve (22) lowers from a first target current value (422) to a second target current value (431) such that an emission of audible noise occurring upon closing of the magnetic valve (22) during operation of the internal combustion engine is at least partially reduced.

IPC 8 full level

F02D 41/20 (2006.01); **F02D 41/38** (2006.01); **F02M 59/36** (2006.01); **F02M 63/02** (2006.01); **H01F 7/18** (2006.01)

CPC (source: EP KR US)

F02D 41/20 (2013.01 - EP KR US); **F02D 41/2464** (2013.01 - EP KR US); **F02D 41/3845** (2013.01 - EP KR US);
F02M 59/366 (2013.01 - EP KR US); **F02M 63/0225** (2013.01 - EP KR US); **F02D 2200/0602** (2013.01 - EP KR US);
F02D 2250/31 (2013.01 - EP KR US)

Cited by

DE102016226272A1; WO2017114868A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

DE 102008054702 A1 20100617; CN 102245882 A 20111116; CN 102245882 B 20141126; EP 2379868 A1 20111026;
EP 2379868 B1 20130403; KR 101609013 B1 20160404; KR 20110110118 A 20111006; US 2011315124 A1 20111229;
US 8833342 B2 20140916; WO 2010072536 A1 20100701

DOCDB simple family (application)

DE 102008054702 A 20081216; CN 200980150417 A 20091203; EP 09796658 A 20091203; EP 2009066339 W 20091203;
KR 20117013717 A 20091203; US 200913139940 A 20091203