Title (en)

Method for estimating the exhaust gas flow rate for an internal combustion engine

Title (de)

Verfahren zur Schätzung der Abgasdurchflussrate für einen Verbrennungsmotor

Title (fr)

Procédé pour évaluer la vitesse d'écoulement de gaz d'échappement pour un moteur à combustion interne

Publication

EP 2708726 A1 20140319 (EN)

Application

EP 13184641 A 20130916

Priority

- IT BO20120486 A 20120917
- IT BO20120487 A 20120917
- IT BO20120488 A 20120917
- IT BO20120489 A 20120917

Abstract (en)

A method for estimating the exhaust gas flow rate (m) for an internal combustion engine (1); the internal combustion engine (1) is provided with an exhaust system for emitting the gases produced by the combustion into the atmosphere, which comprises, in turn, a manifold (5) for collecting the exhaust gases, an exhaust duct (10) connected to the exhaust manifold (5), and at least one sensor (24) housed along the exhaust duct (10) so as to be hit when by the exhaust gases in use; the estimation method comprises the steps of calculating the electric power (P) to be supplied to the sensor (24) in order to keep the sensor (24) itself at a constant temperature; and estimating the exhaust gas flow rate (m) as a function of the electric power (P) to supply to the sensor (24) in order to keep the sensor (24) itself at a constant temperature.

IPC 8 full level

F02D 41/14 (2006.01); **F02D 41/18** (2006.01)

CPC (source: EP)

F02D 41/1445 (2013.01); **F02D 41/1454** (2013.01); **F02D 41/187** (2013.01)

Citation (applicant)

- EP 2110535 A1 20091021 - MAGNETI MARELLI POWERTRAIN SPA [IT]
- IT BO20110213 A 20110420

Citation (search report)

- [X] EP 1529952 A2 20050511 - HITACHI LTD [JP]
- [Y] US 2002108603 A1 20020815 - WIENAND KARLHEINZ [DE], et al
- [Y] JP S60260859 A 19851224 - NIPPON KOKAN KK
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Cited by

US10774757B2; US10024265B2

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2708726 A1 20140319; **EP 2708726 B1 20210317**

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