Title (en)

METHOD FOR OPERATING A COMBUSTION ENGINE AND DEVICE FOR IMPLEMENTING THE METHOD

Title (de)

VERFAHREN ZUM BETREIBEN EINER VERBRENNUNGSKRAFTMASCHINE SOWIE ZUR AUSFÜHRUNG DES VERFAHRENS EINGERICHTETES STEUERGERÄT

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UN MOTEUR À COMBUSTION INTERNE ET APPAREIL DE COMMANDE POUR L'EXÉCUTION DU PROCÉDÉ

Publication

EP 2786002 A1 20141008 (DE)

Application

EP 12795389 A 20121123

Priority

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Abstract (en)

[origin: WO2013079405A1] The invention relates to a method for operating an internal combustion engine. According to the method, an exhaust gas produced by the internal combustion engine is conducted across a 3-way catalytic converter arranged in the exhaust duct. A lambda probe detects a value characteristic of an exhaust-gas lambda number upstream of the 3-way catalytic converter, and transmits said value to an engine control unit with an integrated PI or PID regulator. By means of the PI or PID regulator of the engine control unit, through the specification of a setpoint value, a substantially stoichiometric exhaust-gas lambda number is set, and the exhaust-gas lambda number is, with predefined periodic setpoint value variation, deflected alternately in the direction of a lean lambda number and a rich lambda number (lambda modulation). At the start of each setpoint value variation, a pilot-controlled P component with subsequent I component is predefined up to a time t2, wherein the time t2 is defined by means of stored parameters, which characterize a section time behaviour, such that the probe signal or a value derived therefrom would have had to have reached the setpoint value specification at said time t2. From the time t2 onwards, for a predefinable time period until the end of the respective setpoint value variation, a switch is made to a regulating algorithm which is based on a difference between an actual value and the setpoint value of the lambda probe or a value derived therefrom.

IPC 8 full level

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Citation (search report)

See references of WO 2013079405A1

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DOCDB simple family (application)

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