

Title (en)

METHOD AND APPARATUS FOR CONTROLLING AN AIR FUEL RATIO OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR REGELUNG EINES LUFT-KRAFTSTOFF-VERHÄLTNISSES EINES VERBRENNUNGSMOTORS

Title (fr)

PROCÉDÉ ET APPAREIL POUR CONTRÔLER UN RAPPORT AIR-CARBURAANT D'UN MOTEUR À COMBUSTION INTERNE

Publication

EP 2786003 B1 20190918 (DE)

Application

EP 12795783 A 20121127

Priority

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- EP 2012073690 W 20121127

Abstract (en)

[origin: WO2013079468A1] The invention relates to a method and to a regulating device for regulating an air-fuel ratio of an internal combustion engine (10), wherein an exhaust-gas composition of an exhaust gas of the internal combustion engine (10) is determined by virtue of an actual probe signal, which is dependent on the exhaust-gas composition, being detected by means of an exhaust-gas probe (22) and the exhaust-gas composition being determined as a function of the actual probe signal by means of a characteristic curve or a calculation rule, and wherein the determined exhaust-gas composition is compared with a setpoint value or a threshold value, the attainment or exceedance of which triggers a manipulation of the air-fuel ratio supplied to the internal combustion engine (10), wherein, in order to take into consideration at least one disturbance variable which affects the actual probe signal, a safety margin (DeltaS) is defined which is applied to the characteristic curve or calculation rule, to the actual probe signal or to the setpoint value or threshold value. It is provided that an evaluation of a present accuracy of the at least one disturbance variable and/or of a present influence of the at least one disturbance variable on the probe signal is performed, and the safety margin (DeltaS) owing to the at least one disturbance variable is defined as a function of the evaluation.

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Citation (examination)

- EP 1048834 A2 20001102 - SIEMENS AG [DE]
- WO 03010497 A1 20030206 - BOSCH GMBH ROBERT [DE], et al

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