

Title (en)

METHOD AND DEVICE FOR CONTROLLING A SPARK IGNITION ENGINE IN THE AUTO-IGNITION OPERATING MODE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR REGELUNG EINES OTTOMOTORS IM SELBSTZÜNDUNGSBETRIEB

Title (fr)

PROCÉDÉ ET DISPOSITIF DE RÉGLAGE D'UN MOTEUR OTTO EN FONCTIONNEMENT À ALLUMAGE SPONTANÉ

Publication

**EP 2640947 A1 20130925 (DE)**

Application

**EP 11767730 A 20111012**

Priority

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Abstract (en)

[origin: WO2012065788A1] The invention relates to a method for operating a combustion engine in the HCCI mode, having the following steps: a) sensing (S1) of a profile of a measured value of a variable in a combustion chamber of a cylinder (3) of the combustion engine (2); b) acquisition (S2) of one or more combustion features (SOC, MFB10%, MFB50%, MFB90%, Q10%, Q50%, Q90%) of a combustion process in a first combustion cycle based on the measured profile of the measured variable; c) determination (S3), in particular modelling, of a first value of a state variable at a defined time after the first combustion cycle and before a second subsequent combustion cycle based on the acquired one or more combustion features (SOC, MFB10%, MFB50%, MFB90%, Q10%, Q50%, Q90%); d) determination (S4) of desired setpoint values of one or more combustion features of a combustion process in the second subsequent combustion cycle; e) determination (S5), in particular modelling, of a second value of the state variable at the defined time on the basis of the setpoint values of the one or more combustion features (SOC, MFB10%, MFB50%, MFB90%, Q10%, Q50%, Q90%) of the second combustion cycle; and f) actuation (S8) of the combustion engine (2) starting from the defined time as a function of the first value of the state variable and the second value of the state variable.

IPC 8 full level

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Citation (search report)

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