

Title (en)

Combustion control system of internal combustion engine

Title (de)

Verbrennungssteuerungssystem für einen Verbrennungsmotor

Title (fr)

Système de commande de la combustion d'un moteur à combustion interne

Publication

EP 2375034 A3 20180314 (EN)

Application

EP 11161715 A 20110408

Priority

JP 2010089153 A 20100408

Abstract (en)

[origin: EP2375034A2] A required nominal-torque heat-release-rate characteristic value that satisfies the required nominal torque, required engine speed and required ignition timing is specified as the maximum value of a heat-release-rate waveform. It is determined whether a limiting-value heat-release-rate characteristic value based on a restriction, such as combustion noise, is within a permissible range of the restriction, with respect to one of the required nominal-torque heat-release-rate characteristic values which meets the above requirements, and the required nominal-torque heat-release-rate characteristic value is changed to another required nominal-torque heat-release-rate characteristic value that meets the above requirements, until the limiting-value heat-release-rate characteristic value falls within the permissible range of the restriction. Where there a plurality of required nominal-torque heat-release-rate characteristic values that meet the respective requirements, one of the characteristic values which is closest to the compression top dead center is used, and an actuator, such as an injector, is driven so as to provide the nominal-torque heat-release-rate characteristic value.

IPC 8 full level

F02D 35/02 (2006.01)

CPC (source: EP)

F02D 35/023 (2013.01)

Citation (search report)

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- [X] DE 102005058820 A1 20070614 - DAIMLER CHRYSLER AG [DE]
- [A] WO 2005005813 A2 20050120 - AVL LIST GMBH [AT], et al
- [A] DE 102004033072 A1 20050728 - BOSCH GMBH ROBERT [DE]
- [A] EP 1300588 A1 20030409 - AVL LIST GMBH [AT]

Cited by

EP3591184A1; CN105074184A; CN106232969A; CN105264210A; CN106232970A; EP3009643A4; US9784201B2; US9951711B2; US9657681B2; WO2014155170A1; WO2015110894A3; WO2019034260A1; US10385799B2; US10837398B2

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