

Title (en)  
Method for detecting abnormal combustion in an internal combustion engine

Title (de)  
Verfahren zur Erkennung einer anormalen Verbrennung für Verbrennungsmotoren

Title (fr)  
Procédé de détection de combustion anormale pour moteurs à combustion interne

Publication  
**EP 2166214 B1 20130220 (FR)**

Application  
**EP 09290618 A 20090805**

Priority  
FR 0805132 A 20080918

Abstract (en)  
[origin: EP2166214A1] The method involves estimating cylinder pressure from a physical module and intake pressure measurement, and detecting abnormal combustion by comparing value of unit e.g. cylinder pressure gradient, calculated from cylinder pressure measurement with another value of unit e.g. cylinder pressure gradient, calculated from cylinder pressure estimation. An amplitude of the pre-ignition is characterized. A flow of the detected abnormal combustion in the combustion chamber is controlled based on the amplitude of the pre-ignition.

IPC 8 full level  
**F02D 35/02** (2006.01); **F02D 19/12** (2006.01); **F02D 41/40** (2006.01)

CPC (source: EP US)  
**F02D 19/12** (2013.01 - EP US); **F02D 35/023** (2013.01 - EP US); **F02D 35/024** (2013.01 - EP US); **F02D 41/0025** (2013.01 - EP US); **F02D 41/402** (2013.01 - EP US)

Cited by  
EP3112644A4; WO2019038470A1; US9869290B2; US10508639B2; WO2014079648A1; WO2014079649A1

Designated contracting state (EPC)  
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 SE SI SK SM TR

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