

Title (en)

Minimum fuel mass adaptation using cylinder pressure sensor

Title (de)

Mindestmassenanpassung für einen Kraftstoff mit einem Zylinderdrucksensor

Title (fr)

Adaptation de masse de carburant minimum utilisant un détecteur de pression de cylindre

Publication

EP 2136058 A1 20091223 (EN)

Application

EP 08011167 A 20080619

Priority

EP 08011167 A 20080619

Abstract (en)

It is described a method for adapting injector characteristics of fuel injectors (30, 32) of a multi-cylinder internal combustion engine (10) having combustion chambers (12, 14) with direct fuel injection, which injector characteristics are adapted for each injector (30) individually to compensate for deviations the individual injectors (30, 32) have from standard injectors (30), wherein fuel is injected by each injector (30) and the operation of the engine resulting therefrom is evaluated, and wherein the method further comprises: determining for each cylinder a value of the peak pressure or the indicated mean pressure, which pressure value occurs during a combustion cycle in the cylinder's combustion chamber (12, 14), and modifying the injector characteristics individually for each injector (30, 32) to minimize differences between the pressure values over said cylinders.

IPC 8 full level

F02D 35/02 (2006.01); **F02D 41/00** (2006.01); **F02D 41/14** (2006.01)

CPC (source: EP)

F02D 35/023 (2013.01); **F02D 41/0085** (2013.01); **F02D 41/1498** (2013.01)

Citation (applicant)

- DE 19720009 A1 19981119 - SIEMENS AG [DE]
- DE 10011690 A1 20010920 - SIEMENS AG [DE]
- DE 10257686 A1 20040715 - SIEMENS AG [DE]
- US 5329809 A 19940719 - SELLNAU MARK C [US], et al

Citation (search report)

- [XY] WO 02095191 A2 20021128 - RICARDO CONSULTING ENG [GB], et al
- [Y] FR 2857700 A1 20050121 - MAGNETI MARELLI MOTOPROPULSION [FR]
- [X] US 2005056255 A1 20050317 - HARRIS RALPH E [US], et al
- [X] US 7178507 B1 20070220 - GANGOPADHYAY ANUPAM [US]

Cited by

EP2698521A1; AT513359A1; AT513359B1; WO2012034656A1; US10066565B2; DE102015214780A1; US10920710B2; DE102021206409B3

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2136058 A1 20091223

DOCDB simple family (application)

EP 08011167 A 20080619