

Title (en)
Method for operating a combustion engine

Title (de)
Verfahren zum Betreiben einer Brennkraftmaschine

Title (fr)
Procédé destiné au fonctionnement d'un moteur à combustion interne

Publication
EP 2698520 A1 20140219 (DE)

Application
EP 13003562 A 20130716

Priority
AT 8962012 A 20120817

Abstract (en)
The method involves detecting a cylinder-specific signal of each cylinder, such as of cylinder internal pressure, cylinder exhaust gas temperature, nitrogen oxide emissions or combustion-air ratio, and forming a set value from the signals of the cylinder. A combustion parameter of the corresponding cylinder is adjusted in dependence on the deviation of a signal from the set value. The signal is tracked to the target value, where the median of the signals is formed as the set value.

Abstract (de)
Verfahren zum Betreiben einer Brennkraftmaschine (1), insbesondere eines Gasmotors, mit wenigstens drei Zylindern (2), wobei von jedem Zylinder (2) ein zylinderindividuelles Signal (p max , E) erfasst wird, wobei aus den Signalen (p max , E) der Zylinder (2) ein Sollwert (p median , E median) gebildet wird, wobei in Abhängigkeit von der Abweichung eines Signals (p max , E) vom Sollwert (p median , E median) wenigstens ein Verbrennungsparameter (Q, Z) des entsprechenden Zylinders (2) eingestellt wird, wobei das Signal (p max , E) dem Sollwert (p median , E median) nachgeführt wird, wobei als Sollwert (p median , E median) der Median der Signale (p max , E) gebildet wird.

IPC 8 full level
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CPC (source: EP KR US)
F02D 19/024 (2013.01 - KR); **F02D 29/06** (2013.01 - KR); **F02D 35/023** (2013.01 - EP KR US); **F02D 35/025** (2013.01 - EP KR US); **F02D 41/0027** (2013.01 - EP KR US); **F02D 41/008** (2013.01 - EP KR US); **F02D 41/0085** (2013.01 - KR); **F02D 41/3011** (2013.01 - KR US); **F02D 41/401** (2013.01 - KR); **F02D 19/024** (2013.01 - EP US); **F02D 29/06** (2013.01 - EP US); **F02D 37/02** (2013.01 - EP US); **F02D 41/0085** (2013.01 - EP US); **F02D 41/401** (2013.01 - EP US)

Citation (applicant)
• US 7957889 B2 20110607 - PORTIN KAJ [FI], et al
• EP 0259382 B1 19891004

Citation (search report)
• [IAY] DE 19754353 A1 19990610 - MAN B & W DIESEL AG [DE]
• [I] DE 102010042736 A1 20120426 - BOSCH GMBH ROBERT [DE]
• [IA] US 2010089364 A1 20100415 - FLANAGAN EDWARD [US], et al
• [I] WO 2009122012 A1 20091008 - WAERTSILAE FINLAND OY [FI], et al
• [Y] DE 102010045689 A1 20110421 - DAIMLER AG [DE]
• [YA] WO 2012097389 A2 20120726 - GE JENBACHER GMBH & CO OHG [AT], et al
• [A] US 7467040 B2 20081216 - KER STEPHAN [FR], et al
• [A] DE 102009008247 B3 20100819 - IAV GMBH [DE]
• [A] GALLAGHER N C JR ET AL: "A Theoretical Analysis of the Properties of Median Filters", IEEE TRANSACTIONS ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING, IEEE INC. NEW YORK, USA, vol. 29, no. 6, 31 December 1981 (1981-12-31), pages 1136 - 1141, XP002580384, ISSN: 0096-3518

Cited by
US10161320B2; JP2015155695A

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BA ME

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EP 2698520 A1 20140219; AT 513139 A4 20140215; AT 513139 B1 20140215; BR 102013020924 A2 20151027; BR 102013020924 B1 20210803; CN 103590917 A 20140219; CN 103590917 B 20200908; JP 2014037835 A 20140227; KR 20140023233 A 20140226; US 2014052362 A1 20140220; US 9316169 B2 20160419

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