

Title (en)

Variable compression ratio internal combustion engine

Title (de)

Brennkraftmaschine mit variablem Verdichtungsverhältnis

Title (fr)

Moteur à combustion interne avec taux de compression variable

Publication

EP 1564392 A1 20050817 (EN)

Application

EP 05002837 A 20050210

Priority

JP 2004036955 A 20040213

Abstract (en)

In a variable compression ratio internal combustion engine whose compression ratio is varied by changing the volume of a combustion chamber, the present invention is intended to enable the engine to operate at a high compression ratio under a much higher load while suppressing an excessive rise in the temperature of the combustion chamber. A cooling system is provided for cooling the variable compression ratio internal combustion engine, and when the load of the variable compression ratio internal combustion engine is equal to a specified value or above at a high compression ratio (S101, S102), the cooling capacity of the cooling system is increased more than when the load of the variable compression ratio internal combustion engine is lower than the specified value (S103), whereby a temperature rise in the combustion chamber can be suppressed. <IMAGE>

IPC 1-7

F02D 15/04; F01P 7/16

IPC 8 full level

F01P 7/16 (2006.01); **F02B 75/04** (2006.01); **F02D 15/04** (2006.01); **F02F 1/18** (2006.01)

CPC (source: EP)

F01P 7/167 (2013.01); **F02B 75/04** (2013.01); **F02D 15/04** (2013.01); **F02B 2275/16** (2013.01)

Citation (applicant)

- JP 2003129817 A 20030508 - TOYOTA MOTOR CORP
- JP S63186926 A 19880802 - ATSUGI MOTOR PARTS CO LTD, et al
- JP S63195340 A 19880812 - ATSUGI MOTOR PARTS CO LTD, et al
- JP S63302150 A 19881209 - NISSAN MOTOR, et al
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Citation (search report)

- [A] EP 1318286 A2 20030611 - NISSAN MOTOR [JP]
- [A] WO 9942718 A1 19990826 - CUMMINS ENGINE CO INC [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 092 (M - 468) 9 April 1986 (1986-04-09)

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Designated contracting state (EPC)

DE FR SE

DOCDB simple family (publication)

EP 1564392 A1 20050817; EP 1564392 B1 20070404; DE 602005000780 D1 20070516; DE 602005000780 T2 20080110;
JP 2005226571 A 20050825; JP 4397246 B2 20100113

DOCDB simple family (application)

EP 05002837 A 20050210; DE 602005000780 T 20050210; JP 2004036955 A 20040213