

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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DE FR SE

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