

Title (en)

Liquid cooled combustion engine with an exhaust gas recirculation system

Title (de)

Flüssigkeitsgekühlte Brennkraftmaschine mit einem Abgasrückführsystem

Title (fr)

Moteur à combustion à refroidissement par liquide et avec un système de recirculation de gaz d'échappement

Publication

**EP 1055813 A3 20010711 (DE)**

Application

**EP 00109834 A 20000510**

Priority

DE 19924398 A 19990527

Abstract (en)

[origin: EP1055813A2] The engine has an exhaust gas feedback heat exchanger (5) connected to the feed or return sides of a cooling medium circuit controlled by a thermostat for cooling the exhaust gas fed back into the induction air (7) via a valve (6). The heat exchanger is controlled on the feed or return side by a choke-thermostat (8). The heat exchanger is controlled to use exhaust gas heat. A first branching device (10) downstream of the valve is connected to an engine exhaust gas line (11). A second branching device (14) to coolant circuit is arranged in the heat exchanger's feed or return line. The valve and the two branching devices are controlled a characteristic field to provide free passage for exhaust gas feedback.

IPC 1-7

**F02M 25/07; F01P 3/20**

IPC 8 full level

**F01P 3/20** (2006.01); **F02C 3/08** (2006.01); **F02M 25/07** (2006.01); **F02M 26/28** (2016.01); **F02M 26/71** (2016.01); **F01P 7/14** (2006.01);  
**F02B 29/04** (2006.01)

CPC (source: EP)

**F01P 3/20** (2013.01); **F02M 26/28** (2016.02); **F02M 26/71** (2016.02); **F01P 2007/143** (2013.01); **F01P 2007/146** (2013.01);  
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**F02M 26/33** (2016.02); **F02M 26/44** (2016.02)

Citation (search report)

- [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 03 31 March 1999 (1999-03-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 10 31 October 1996 (1996-10-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 10 31 August 1999 (1999-08-31)

Cited by

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WO2007012493A1; DE102010001752A1; WO2006005879A1; WO2005028847A1; WO2004022940A1; US8136488B2

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