

Title (en)

METHOD FOR REGULATING THE HEAT OF AN INTERNAL COMBUSTION ENGINE FOR VEHICLES

Title (de)

VERFAHREN ZUR WÄRMEREGULIERUNG EINER BRENNKRAFTMASCHINE FÜR FAHRZEUGE

Title (fr)

PROCEDE DE REGULATION THERMIQUE DE MOTEUR A COMBUSTION INTERNE POUR VEHICULES

Publication

EP 1509687 A1 20050302 (DE)

Application

EP 03714903 A 20030329

Priority

- DE 10224063 A 20020531
- EP 0303301 W 20030329

Abstract (en)

[origin: WO03102394A1] The invention relates to a method for regulating the heat of an internal combustion engine for vehicles, with a coolant circuit and controllable devices for influencing the thermal economy of the internal combustion engine. According to the invention, a coolant temperature and additional operating parameters of the internal combustion engine are recorded, and the controllable devices are controlled according to the coolant temperature and the additional operating parameters of the internal combustion engine. The invention provides that a regulation of the coolant temperature and/or of the additional operating parameters ensues in such a manner that, by using a main characteristics map, an initial value for determining a manipulated variable is prescribed according to the rotational speed and the load of the internal combustion engine, and this initial value is corrected by a controller according to the coolant temperature and/or the additional operating parameters. This method is used, e.g. for the management of heat in efficiency-optimized direct injection diesel engines.

IPC 1-7

F01P 7/16

IPC 8 full level

F02D 29/04 (2006.01); **F01P 7/02** (2006.01); **F01P 7/04** (2006.01); **F01P 7/10** (2006.01); **F01P 7/16** (2006.01); **F02M 25/07** (2006.01); **F01P 5/10** (2006.01); **F01P 7/12** (2006.01); **F01P 7/14** (2006.01); **F02D 41/14** (2006.01)

CPC (source: EP US)

F01P 7/167 (2013.01 - EP US); **F02M 26/28** (2016.02 - EP US); **F01P 7/04** (2013.01 - EP US); **F01P 7/12** (2013.01 - EP US); **F01P 7/164** (2013.01 - EP US); **F01P 2005/105** (2013.01 - EP US); **F01P 2007/146** (2013.01 - EP US); **F01P 2023/00** (2013.01 - EP US); **F01P 2023/08** (2013.01 - EP US); **F01P 2025/04** (2013.01 - EP US); **F01P 2025/13** (2013.01 - EP US); **F01P 2025/32** (2013.01 - EP US); **F01P 2025/33** (2013.01 - EP US); **F01P 2025/42** (2013.01 - EP US); **F01P 2025/46** (2013.01 - EP US); **F01P 2025/50** (2013.01 - EP US); **F01P 2060/02** (2013.01 - EP US); **F01P 2060/08** (2013.01 - EP US); **F02D 41/1446** (2013.01 - EP US)

Citation (search report)

See references of WO 03102394A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 03102394 A1 20031211; DE 10224063 A1 20031211; DE 50313040 D1 20101014; EP 1509687 A1 20050302; EP 1509687 B1 20100901; JP 2005529269 A 20050929; JP 4164690 B2 20081015; US 2006005790 A1 20060112; US 7128026 B2 20061031

DOCDB simple family (application)

EP 0303301 W 20030329; DE 10224063 A 20020531; DE 50313040 T 20030329; EP 03714903 A 20030329; JP 2004509255 A 20030329; US 99835504 A 20041127