

Title (en)

Device and method for cooling of the cylinders and the cylinder head of an internal combustion engine

Title (de)

Einrichtung und Verfahren zur Kühlung der Zylinder und der Zylinderkopf einer Brennkraftmaschine

Title (fr)

Dispositif et procédé de refroidissement des cylindres et de la culasse d'un moteur thermique

Publication

**EP 1739293 A3 20090610 (FR)**

Application

**EP 06300516 A 20060524**

Priority

FR 0506663 A 20050629

Abstract (en)

[origin: EP1739293A2] The device has a main coolant e.g. water with freezing-point depressant, circuit (5) with a cylinder head conduit (1), a radiator (8) and a main coolant circulation pump (3). A secondary circuit (9) has a crankcase upper half conduit (2) and a secondary coolant circulation pump (4). The circuit (9) is connected to the circuit (5) by upstream and down stream junctions (10, 11) that are situated on both sides of a non-return valve (6). An independent claim is also included for a method for cooling a heat engine of a motor vehicle.

IPC 8 full level

**F01P 7/16** (2006.01); **F01P 5/10** (2006.01)

CPC (source: EP)

**F01P 7/165** (2013.01); **F01P 7/167** (2013.01); **F01P 2003/021** (2013.01); **F01P 2003/024** (2013.01); **F01P 2003/028** (2013.01);  
**F01P 2005/105** (2013.01); **F01P 2031/30** (2013.01); **F01P 2060/00** (2013.01); **F01P 2060/08** (2013.01)

Citation (search report)

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- [X] US 4423705 A 19840103 - MORITA YASUYUKI [JP], et al
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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1739293 A2 20070103; EP 1739293 A3 20090610; FR 2887923 A1 20070105; FR 2887923 B1 20070824**

DOCDB simple family (application)

**EP 06300516 A 20060524; FR 0506663 A 20050629**