

Title (en)

Cooling device of an internal combustion engine

Title (de)

Kühlungsvorrichtung einer Brennkraftmaschine

Title (fr)

Dispositif de refroidissement d'un moteur à combustion interne

Publication

EP 0816651 B1 20011107 (FR)

Application

EP 97401370 A 19970616

Priority

FR 9607815 A 19960624

Abstract (en)

[origin: EP0816651A1] The i. c. engine cooling circuit (6) is divided into two distinct parts (7,8) by the walls of the cylinder block (2) and cylinder head (3). A radiator (9) has an inlet (R1) and an outlet (R2) connected to the circuit. The radiator outlet is connected through the re-circulation pump (10) to the inlet (E1) of the cooling circuit in the cylinder head. The outlet (S1) from the cylinder head is separated into two paths. One path (S12) is connected to the radiator inlet and the other (S11) to the inlet (E2) of the cylinder block circuit. The outlet (S2) of this second part is also connected to the radiator inlet. The inlet to the cylinder head is made in the wall located on the inlet side of the cylinder head. The cylinder head outlet is made in the exhaust side. The inlet to the cylinder block is connected to the cylinder head outlet. The outlet from the block is in the exhaust side of the cylinder block.

IPC 1-7

F01P 3/02; **F01P 7/16**

IPC 8 full level

F01P 3/02 (2006.01)

CPC (source: EP)

F01P 3/02 (2013.01); **F01P 2003/028** (2013.01); **F01P 2025/50** (2013.01)

Cited by

JP2014055579A; DE19803884A1; FR2934319A1; CN106894877A; EP1900919A1; GB2348485A; GB2348485B; DE19803885A1; DE19803885B4; FR2934317A1; US2014209046A1; CN103967578A; US9140176B2; US8739745B2; EP2562378A1; WO0183958A1; EP2562379A1; WO2009143866A1; WO03093661A1

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

EP 0816651 A1 19980107; **EP 0816651 B1 20011107**; DE 69707980 D1 20011213; DE 69707980 T2 20020404; ES 2164311 T3 20020216; FR 2750164 A1 19971226; FR 2750164 B1 19980911

DOCDB simple family (application)

EP 97401370 A 19970616; DE 69707980 T 19970616; ES 97401370 T 19970616; FR 9607815 A 19960624