

Title (en)

Vehicle internal combustion engine cooling circuit

Title (de)

Kühlungskreis für eine Brennkraftmaschine eines Kraftfahrzeugs

Title (fr)

Circuit de refroidissement pour un moteur à combustion interne de véhicule

Publication

EP 1405991 A1 20040407 (EN)

Application

EP 03022278 A 20031001

Priority

IT TO20020853 A 20021002

Abstract (en)

The circuit has a circuit branch (23) for cooling a cylinder head (3) of an engine (2), and a circuit branch (26) for cooling an engine block of the engine. The two circuit branches are in series with each other. A feedback line (29) connects an outlet of the branch (26) to the inlet. A valve (31) controls flow along the line. Coolant temperature in the branch (26) is higher than coolant temperature in the branch (23).

IPC 1-7

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

IPC 8 full level

F01P 3/02 (2006.01); **F01P 7/16** (2006.01); **F01P 7/14** (2006.01)

CPC (source: EP)

F01P 3/02 (2013.01); **F01P 7/165** (2013.01); **F01P 2003/021** (2013.01); **F01P 2003/024** (2013.01); **F01P 2003/028** (2013.01); **F01P 2007/143** (2013.01); **F01P 2007/146** (2013.01)

Citation (search report)

- [X] PATENT ABSTRACTS OF JAPAN vol. 0070, no. 81 (M - 205) 5 April 1983 (1983-04-05)
- [X] PATENT ABSTRACTS OF JAPAN vol. 0070, no. 24 (M - 189) 29 January 1983 (1983-01-29)

Cited by

EP2562379A1; EP3034846A1; EP2562378A1; CN105525978A; CN110177925A; US8739745B2; US7921829B2; US10866603B2; WO2007058225A1; WO2018139968A1

Designated contracting state (EPC)

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