

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 B1 20081210 (EN)

Application

EP 03022278 A 20031001

Priority

IT TO20020853 A 20021002

Abstract (en)

[origin: EP1405991A1] 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 8 full level

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

Cited by

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

Designated contracting state (EPC)

AT DE ES FR GB

DOCDB simple family (publication)

EP 1405991 A1 20040407; **EP 1405991 B1 20081210**; AT E417191 T1 20081215; DE 60325150 D1 20090122; IT TO20020853 A1 20040403

DOCDB simple family (application)

EP 03022278 A 20031001; AT 03022278 T 20031001; DE 60325150 T 20031001; IT TO20020853 A 20021002