

Title (en)

Cooling system for an internal combustion engine.

Title (de)

Kühlungssystem für eine Brennkraftmaschine.

Title (fr)

Système de refroidissement pour moteur à combustion interne.

Publication

**EP 0653553 A2 19950517 (EN)**

Application

**EP 95101307 A 19900627**

Priority

- EP 93105961 A 19900627
- JP 18661489 A 19890719
- JP 17467589 A 19890706
- JP 18661689 A 19890719
- JP 17467689 A 19890706

Abstract (en)

The present invention relates to a cooling system for an internal combustion engine comprising a cylinder head (11) affixed to a cylinder block (7) defining a plurality of cylinders and a cylinder head coolant jacket (135) for circulating coolant between an intake and exhaust side of the cylinder head (11), said cylinder (11) head having at least one intake passage (11c) extending through one side of said cylinder head (11) and at least one exhaust passage (11d) extending through another side of said cylinder head (11). The cooling system is improved in that a flow regulating member (138) is provided in the cylinder head coolant jacket (135) between adjacent cylinders (XI,XL) for regulating a transverse flow of coolant through the cylinder head jacket (135) between the intake and exhaust sides. According to another aspect of the invention, the cylinder head coolant jacket (135) is communicated with the cylinder block coolant jacket (134) for circulating the coolant therethrough after cooling the cylinder head (11), and a coolant main passage (135a) is formed along one side of the cylinder head (11) for circulating the coolant through the cylinder head coolant jacket transversely from said one side to the opposite side of the cylinder head (11). <IMAGE>

IPC 1-7

**F01P 3/02**; F02F 1/36; F02F 7/00

IPC 8 full level

**F01L 1/02** (2006.01); **F01L 1/053** (2006.01); **F01P 3/02** (2006.01); **F01P 5/12** (2006.01); **F02B 67/06** (2006.01); **F02F 1/10** (2006.01); **F02F 1/40** (2006.01); **F02F 1/42** (2006.01); **F01M 1/12** (2006.01); **F02B 1/04** (2006.01); **F02B 75/18** (2006.01); **F02B 75/20** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP)

**F01L 1/02** (2013.01); **F01L 1/022** (2013.01); **F01L 1/024** (2013.01); **F01L 1/026** (2013.01); **F01L 1/0532** (2013.01); **F01P 3/02** (2013.01); **F01P 5/12** (2013.01); **F02B 67/06** (2013.01); **F02F 1/108** (2013.01); **F02F 1/40** (2013.01); **F02F 1/4221** (2013.01); **F01L 2001/0537** (2013.01); **F01L 2003/251** (2013.01); **F01M 2001/126** (2013.01); **F02B 1/04** (2013.01); **F02B 75/20** (2013.01); **F02B 2075/1824** (2013.01); **F02B 2275/08** (2013.01); **F02B 2275/18** (2013.01); **F02F 2001/245** (2013.01); **F05C 2201/021** (2013.01)

Cited by

FR2812030A1; EP1039098A1; US6295959B1; EP4328426A1; IT202200017616A1; EP0923459B1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0415022 A1 19910306**; **EP 0415022 B1 19940323**; DE 69007576 D1 19940428; DE 69007576 T2 19940630; DE 69030111 D1 19970410; DE 69030111 T2 19970612; DE 69032625 D1 19981008; DE 69032625 T2 19990128; EP 0560402 A1 19930915; EP 0560402 B1 19970305; EP 0653553 A2 19950517; EP 0653553 A3 19950628; EP 0653553 B1 19980902; ES 2054159 T3 19940801

DOCDB simple family (application)

**EP 90112308 A 19900627**; DE 69007576 T 19900627; DE 69030111 T 19900627; DE 69032625 T 19900627; EP 93105961 A 19900627; EP 95101307 A 19900627; ES 90112308 T 19900627