

Title (en)

Cooling device for v-type internal combustion engine

Title (de)

Kühlungsvorrichtung für eine V-Typ Brennkraftmaschine

Title (fr)

Dispositif de refroidissement pour un moteur à combustion interne en V

Publication

EP 0987410 B1 20030305 (EN)

Application

EP 99118210 A 19990913

Priority

JP 26069798 A 19980914

Abstract (en)

[origin: EP0987410A2] Object: To provide a cooling device for a V-type internal combustion engine, which is capable of sequentially supplying cooling water having been discharged from a water pump to water jackets of first and second banks and to a radiator by way of relatively inconspicuous water pipes. Solving Means: A discharge pipe 76 of a water pump 62 is communicated to a water jacket 241 of a first bank 41; a lower portion of the water jacket 241 of the first bank 41 is communicated to a lower portion of a water jacket 242 of a second bank 42 via a lower communication water pipe 773; an upper portion of the water jacket 241 of the first bank 41 is communicated via an upper communication water pipe 774 to a combined chamber 80 which is formed in the second bank 42 and connected to an upper portion of the water jacket 242 of the second bank 42; and the lower and upper communication water pipes 773, 774 are disposed in a valley portion 28 between the both banks 41 and 42. <IMAGE>

IPC 1-7

F01P 3/02; F01P 11/04; F02B 75/22

IPC 8 full level

F01P 3/02 (2006.01); **F01P 11/04** (2006.01); **F02B 75/22** (2006.01)

CPC (source: EP)

F01P 3/02 (2013.01); **F01P 11/04** (2013.01); **F02B 75/22** (2013.01); **F01P 2003/021** (2013.01); **F02B 2275/20** (2013.01)

Cited by

US8276560B2

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

EP 0987410 A2 20000322; **EP 0987410 A3 20001115**; **EP 0987410 B1 20030305**; CN 1088501 C 20020731; CN 1247935 A 20000322; DE 69905667 D1 20030410; DE 69905667 T2 20030925; JP 2000087743 A 20000328; JP 4057714 B2 20080305

DOCDB simple family (application)

EP 99118210 A 19990913; CN 99118578 A 19990909; DE 69905667 T 19990913; JP 26069798 A 19980914