

Title (en)

FORCED-CIRCULATION TYPE WATER-COOLING SYSTEM FOR HORIZONTAL INTERNAL-COMBUSTION ENGINE

Publication

EP 0292853 B1 19910904 (EN)

Application

EP 88107963 A 19880518

Priority

- JP 8381187 U 19870529
- JP 19199787 A 19870730

Abstract (en)

[origin: EP0292853A2] In a forced-circulation type water-cooling system for a horizontal internal-combustion engine, a radiator 10 is located roughly at the same height as an engine body 7 in a surrounding space outside a cylinder head 17 positioned at the lateral side of the engine body 7 of the horizontal internal-combustion engine 6. A cooling water inlet 56 for a water jacket 22 and a pump mounting seat 67 for a water pump 62 are provided at one of the front and back opposite sides of the cylinder head 17, which is the same side as a rotation shaft A such as a crankshaft 34 or a gear casing 21 projects from one of the front and back opposite sides of the engine body 7. The water pump 62 is mounted on the pump mounting seat 67 in such a state as its pump shaft 70 extending in the fore and back direction. A pump driving wheel 64 is fixedly secured to the rotation shaft A, and a pump input wheel 63 is fixedly secured to the pump shaft 70. The pump driving wheel 64 and the pump input wheel 63 are interlockingly connected each other through a wrapping connector 65. And the cooling water within the radiator 10 is adapted to be delivered under pressure to a water jacket 22 and circulated to the radiator 10 by means of the water pump 62.

IPC 1-7

F01P 3/18; F01P 5/10; F02B 75/18

IPC 8 full level

F01P 3/02 (2006.01); **F01P 3/18** (2006.01); **F01P 5/10** (2006.01); **F02B 75/00** (2006.01); **F02B 1/04** (2006.01); **F02B 3/06** (2006.01); **F02B 75/18** (2006.01)

CPC (source: EP)

F01P 3/02 (2013.01); **F01P 3/18** (2013.01); **F01P 5/10** (2013.01); **F02B 75/005** (2013.01); **F02B 1/04** (2013.01); **F02B 3/06** (2013.01); **F02B 2075/1808** (2013.01)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0292853 A2 19881130; **EP 0292853 A3 19890726**; **EP 0292853 B1 19910904**; DE 3864581 D1 19911010

DOCDB simple family (application)

EP 88107963 A 19880518; DE 3864581 T 19880518