

Title (en)

WATER/AIR RADIATOR FOR A WATER-COOLED COMBUSTION ENGINE

Publication

EP 0170952 B1 19871111 (DE)

Application

EP 85109011 A 19850719

Priority

DE 3428857 A 19840804

Abstract (en)

[origin: ES288069U] A water/air cooler is provided for water cooled internal combustion engines, especially for use in vehicles, which is constructed out of a cooler block held between water tanks and lateral parts. The lateral parts are connected with the water tanks by means of laterally overextending and gripping fastening brackets. These fastening brackets exhibit openings for engaging protruding connecting bolts on the water tanks. The brackets are affixed to the connecting bolts either through spring clamps or through corresponding protrusions having elastic clamping devices themselves. This water/air cooler is very easily assembled and is especially adapted for systems wherein the water tanks are manufactured out of plastic material.

IPC 1-7

F28D 1/04; F28F 9/00

IPC 8 full level

F28D 1/04 (2006.01); **F28D 1/053** (2006.01); **F28F 9/00** (2006.01); **F28F 9/02** (2006.01); **F28F 21/06** (2006.01)

CPC (source: EP US)

F28D 1/053 (2013.01 - EP US); **F28F 9/001** (2013.01 - EP US); **F28F 9/02** (2013.01 - EP US); **F28F 21/067** (2013.01 - EP US);
F28F 2225/08 (2013.01 - EP US); **F28F 2255/143** (2013.01 - EP US)

Cited by

DE3705939A1; FR2602580A1; EP0346602A1; DE4243204A1; FR2699597A1; FR2585462A1; EP0256913A1; FR2602581A1; DE19722098A1;
DE19722098B4; EP0502836A3; EP0597767A1; FR2697907A1; EP0307803A1; CN111022175A; US6293334B1

Designated contracting state (EPC)

DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0170952 A1 19860212; EP 0170952 B1 19871111; BR 8503656 A 19860506; DE 3428857 A1 19860213; DE 3560964 D1 19871217;
ES 288069 U 19851116; ES 288069 Y 19860616; US 4678026 A 19870707

DOCDB simple family (application)

EP 85109011 A 19850719; BR 8503656 A 19850802; DE 3428857 A 19840804; DE 3560964 T 19850719; ES 288069 U 19850715;
US 76228685 A 19850805