

Title (en)

Assembly for a heat exchanger comprising an aluminium based manifold and tubes and process for manufacturing such an assembly

Title (de)

Anordnung für einen Wärmetauscher bestehend aus einem Verteiler auf Aluminiumbasis und Rohren und Verfahren zur Herstellung einer solchen Anordnung

Title (fr)

Assemblage d'un collecteur à base d'aluminium et de tubes pour échangeur de chaleur et procédé de fabrication d'un tel assemblage

Publication

EP 0826943 B1 20030507 (FR)

Application

EP 97114201 A 19970818

Priority

FR 9610573 A 19960829

Abstract (en)

[origin: EP0826943A1] The aluminium-based heat exchanger manifold has an outer face (2) with a facing layer (3) and apertures (17) to receive the ends of tubes (8) with outer surface layers (19). Each of the apertures is made by piercing and shaping the manifold wall so as to create a contact surface between the respective facing layers of the aperture and tube. The facing layers on the manifold and tube end are of an aluminium/silicium alloy. The inner surface (4) of the manifold also has a facing layer (5) which is of aluminium and zinc or aluminium and magnesium with the magnesium content of over 2 per cent. In a variant the outer surface of the manifold can have an intermediate facing layer of aluminium and zinc between its main surface and its outer facing layer.

IPC 1-7

F28F 9/18

IPC 8 full level

F28D 1/053 (2006.01); **F28F 9/02** (2006.01); **F28F 9/18** (2006.01); **F28F 19/06** (2006.01)

CPC (source: EP US)

F28F 9/02 (2013.01 - EP US); **F28F 9/18** (2013.01 - EP US); **F28F 9/182** (2013.01 - EP US); **F28F 21/084** (2013.01 - EP US);
F28F 2225/08 (2013.01 - EP US); **Y10T 29/49389** (2015.01 - EP US); **Y10T 29/49393** (2015.01 - EP US)

Cited by

EP1967809A1; DE102007033976A1; EP1462754A3; EP2096398A1; EP1462753A3; WO2006005594A1

Designated contracting state (EPC)

DE ES GB IT SE

DOCDB simple family (publication)

EP 0826943 A1 19980304; EP 0826943 B1 20030507; AR 009313 A1 20000412; BR 9704570 A 19981201; DE 69721669 D1 20030612;
DE 69721669 T2 20040325; ES 2199315 T3 20040216; FR 2752930 A1 19980306; FR 2752930 B1 19981113; JP 3985853 B2 20071003;
JP H1089884 A 19980410; MX 9706544 A 19980731; US 2002139521 A1 20021003; US 6651333 B2 20031125

DOCDB simple family (application)

EP 97114201 A 19970818; AR P970103840 A 19970825; BR 9704570 A 19970829; DE 69721669 T 19970818; ES 97114201 T 19970818;
FR 9610573 A 19960829; JP 23391597 A 19970829; MX 9706544 A 19970828; US 15188402 A 20020522