

Title (en)
Heat exchanger with tubular leader box

Title (de)
Wärmetauscher mit rohrförmigen Endkammer

Title (fr)
Echangeur de chaleur à boîtes collectrices tubulaires

Publication
EP 0709642 A1 19960501 (FR)

Application
EP 95116264 A 19951016

Priority
FR 9412690 A 19941024

Abstract (en)
The heat exchanger consists of two tubular manifolds (12) connected by a series of flat tubes (18) which have their ends sealed in slots (22) in the manifold walls. Each manifold is made from two linked halves (56,58) which are generally semi-cylindrical in shape and connected by lengthwise assembly edges (62,66) which are offset radially from the manifold walls. The two halves of each manifold have the same radius of curvature (R), and one has assembly edges which are offset inwards and the other assembly edges which are offset outwards, so that the two pairs of assembly edges overlap one another. They are then joined together by brazing.

Abstract (fr)
L'invention concerne un échangeur de chaleur à boîtes collectrices tubulaires. La boîte collectrice (12) est formée de deux parties complémentaires (56,58) comprenant chacune une paroi semi-cylindrique (60, 64) prolongée par deux bords longitudinaux d'assemblage (62, 66) décalés radialement par rapport à la paroi et ayant des formes conjuguées, l'une des deux parties complémentaires étant pourvue de fentes (22) pour l'introduction des extrémités de tubes (18) faisant partie d'un faisceau reliant la boîte collectrice (12) à une boîte collectrice analogue. Application aux échangeurs de chaleur pour véhicules automobiles. <IMAGE>

IPC 1-7
F28F 9/02

IPC 8 full level
F28F 9/02 (2006.01)

CPC (source: EP)
F28F 9/0224 (2013.01); **F28F 9/0243** (2013.01)

Citation (applicant)
US 5125454 A 19920630 - CREAMER HARVEY [US], et al

Citation (search report)
• [X] US 5307870 A 19940503 - KAMIYA SADAYUKI [JP], et al
• [A] US 5236042 A 19930817 - KADO HIROTAKA [JP]
• [A] US 5172762 A 19921222 - SHINMURA TOSHIHARU [JP], et al
• [A] US 5127466 A 19920707 - ANDO NOBUYASU [JP]
• [A] DE 4217062 A1 19921126 - ZEXEL CORP [JP]
• [A] WO 9304334 A1 19930304 - THERMAL COMPONENTS INC [US]

Cited by
CN101776413A; FR2755507A1; EP0851201A1; FR2757617A1; US5944096A; WO2007048889A1

Designated contracting state (EPC)
DE ES GB IT SE

DOCDB simple family (publication)
EP 0709642 A1 19960501; FR 2726076 A1 19960426; FR 2726076 B1 19961129

DOCDB simple family (application)
EP 95116264 A 19951016; FR 9412690 A 19941024