

Title (en)

Heat-exchanger for motor vehicle

Title (de)

Wärmetauscher für Kraftfahrzeug

Title (fr)

Echangeur de chaleur notamment pour véhicule automobile

Publication

EP 0624772 B1 20000830 (FR)

Application

EP 94107180 A 19940507

Priority

FR 9305650 A 19930511

Abstract (en)

[origin: EP0624772A1] A heat exchanger comprises a bundle of tubes (4) fitted with fins (6), in which the ends (8) of the tubes (4) are mounted in a leaktight manner in the holes (14) of a manifold plate (10) on which a manifold box is mounted. End-stop means (44) are provided between the manifold box (34) and at least one end (8) of the tubes (4). <IMAGE>

IPC 1-7

F28F 9/02

IPC 8 full level

F28D 1/053 (2006.01); **F28F 9/02** (2006.01); **F28F 9/16** (2006.01)

CPC (source: EP US)

F28D 1/05383 (2013.01 - EP US); **F28F 9/0226** (2013.01 - EP US); **F28F 9/165** (2013.01 - EP US); **F28F 2265/32** (2013.01 - EP US);
Y10S 165/477 (2013.01 - EP US); **Y10S 165/906** (2013.01 - EP US)

Cited by

FR3037643A1; FR3081984A1; FR2782157A1; FR3109210A1; US5901784A; US6044554A; US11788804B2; WO2016207177A1;
WO2019229369A1; EP3781890B1

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

EP 0624772 A1 19941117; **EP 0624772 B1 20000830**; BR 9401945 A 19941213; DE 69425688 D1 20001005; DE 69425688 T2 20010419;
FR 2705143 A1 19941118; FR 2705143 B1 19950623; US 5535821 A 19960716

DOCDB simple family (application)

EP 94107180 A 19940507; BR 9401945 A 19940510; DE 69425688 T 19940507; FR 9305650 A 19930511; US 23893094 A 19940506