

Title (en)

Heat exchanger with tubes and fins and process to manufacture it

Title (de)

Wärmetauscher mit Rohren und Rippen sowie Herstellungsverfahren

Title (fr)

Échangeur de chaleur avec tubes et ailettes et procédé de fabrication

Publication

EP 1703243 A1 20060920 (DE)

Application

EP 06002613 A 20060209

Priority

DE 102005008409 A 20050224

Abstract (en)

The exchanger has a collecting tank with a flange outwardly extending around an edge. Tubes (28) with ends extend into openings in a tube plate (44), where the ends of the tubes are soldered to passages and do not extend beyond an internal tube plate surface. An intermediate plate has an edge lying against a connection edge of the tube plate, where the protrusion of the tube plate beyond a periphery of the tubes is small. An independent claim is also included for a method of producing a heat exchanger.

IPC 8 full level

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

CPC (source: EP US)

F28D 1/05366 (2013.01 - EP US); **F28F 9/0224** (2013.01 - EP US); **F28F 9/0229** (2013.01 - EP US); **F28F 2225/08** (2013.01 - EP US); **F28F 2265/32** (2013.01 - EP); **F28F 2275/122** (2013.01 - EP); **Y10T 29/49389** (2015.01 - EP US)

Citation (applicant)

EP 1273864 A2 20030108 - MODINE MFG CO [US]

Citation (search report)

- [A] US 5758721 A 19980602 - LETRANGE FREDERIC [FR], et al
- [DA] US 2003006028 A1 20030109 - KALBACHER KLAUS [DE]
- [A] FR 2742528 A1 19970620 - VALEO THERMIQUE MOTEUR SA [FR]
- [A] US 6296051 B1 20011002 - SAHNOUN ABDEL-JALIL [FR], et al

Cited by

FR2968389A1; FR2911394A1; US10633745B2; WO2008098633A1; WO2012076326A1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

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DOCDB simple family (application)

EP 06002613 A 20060209; DE 102005008409 A 20050224; DE 502006001571 T 20060209; ES 06002613 T 20060209; US 35585706 A 20060215