

Title (en)

Unit of header box and connecting tube for heat exchanger

Title (de)

Baueinheit aus Endkammer und Rohr für Wärmetauscher

Title (fr)

Ensemble d'une boîte collectrice et d'une tubulure pour échangeur de chaleur

Publication

EP 1139054 B2 20121121 (FR)

Application

EP 01103957 A 20010219

Priority

FR 0002327 A 20000224

Abstract (en)

[origin: US2001017201A1] Manifold with integrated pipe for a heat exchanger A manifold for, e.g. a motor vehicle heat exchanger, has a first part formed from a shaped metal sheet and featuring a bottom and two lateral walls folded face-to-face, at least one of which is provided with an aperture for fixing a pipe there. A second part is formed from a shaped metal sheet and able to be fitted onto the lateral walls of the first part to form a cover opposite the bottom of this first part. Either the first part or the second part has a manifold plate. The first part, the second part and the pipe are assembled by brazing.

IPC 8 full level

F28F 9/02 (2006.01); **B21D 53/02** (2006.01); **F28F 9/04** (2006.01); **F28F 9/18** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP US)

F28F 9/0224 (2013.01 - EP US); **F28F 9/0246** (2013.01 - EP US); **F28F 2009/029** (2013.01 - EP US)

Citation (opposition)

Opponent :

- US 5205354 A 19930427 - LESAGE PHILIP G [CA]
- FR 2800451 A1 20010504 - VALEO THERMIQUE MOTEUR SA [FR]
- DE 69509734 T2 19990916 - VALEO ENGINE COOLING AB [SE]
- JP H11337292 A 19991210 - ZEXEL CORP
- DE 9015090 U1 19910117

Cited by

FR2991039A1; DE102007058406A1; EP3054257A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1139054 A1 20011004; **EP 1139054 B1 20040421**; **EP 1139054 B2 20121121**; AT E265033 T1 20040515; DE 60102855 D1 20040527; DE 60102855 T2 20050421; DE 60102855 T3 20130502; ES 2219448 T3 20041201; ES 2219448 T5 20130326; FR 2805606 A1 20010831; FR 2805606 B1 20020705; JP 2001280885 A 20011010; JP 4688310 B2 20110525; US 2001017201 A1 20010830; US 2004244956 A1 20041209; US 7077192 B2 20060718

DOCDB simple family (application)

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