

Title (en)
Flat tube with an insert for heat exchanger

Title (de)
Flachrohr mit Einsatz für Wärmetauscher

Title (fr)
Tube plat avec insert pour échangeur de chaleur

Publication
EP 1684041 A1 20060726 (FR)

Application
EP 06001414 A 20060124

Priority
FR 0500709 A 20050124

Abstract (en)
The tube has a closed contour outer envelop (1) formed by a folded sheared strip and an insert (7) formed by another folded sheared strip housed in the envelope and connected to the envelope for delimiting channels (21,26). The insert has localized depressions (31) distributed on a length and on a width of the latter shear strip. An independent claim is also included for a method for fabricating a flat tube with multiple channels for circulating fluid inside a heat exchanger.

IPC 8 full level
F28D 1/03 (2006.01); **F28F 1/02** (2006.01); **F28F 3/02** (2006.01)

CPC (source: EP)
F28D 1/0391 (2013.01); **F28F 3/025** (2013.01)

Citation (search report)

- [XY] US 2488615 A 19491122 - ARNOLD ARTHUR B
- [Y] EP 1243884 A2 20020925 - DELPHI TECH INC [US]
- [Y] WO 2004005831 A1 20040115 - ZEXEL VALEO CLIMATE CONTR CORP [JP], et al
- [XY] US 2096272 A 19371019 - YOUNG FRED M
- [X] EP 1065466 A2 20010103 - FORD MOTOR CO [US]
- [XY] US 5491997 A 19960220 - OGAWA YUJI [JP]
- [A] FR 2619898 A1 19890303 - SUEDEDEUTSCHE KUEHLER BEHR [DE]
- [A] DE 19819248 C1 19990429 - VALEO KLIMATECH GMBH & CO KG [DE]
- [X] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11 30 September 1998 (1998-09-30)

Cited by
CN103776290A; FR2997486A1; US2011005738A1; FR2980739A1; DE102006035210A1; DE102006035210B4; DE102006029378A1; DE102006029378B4; US8438728B2; US8726508B2; US8683690B2; WO2013050382A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

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