

Title (en)
Heat exchanger

Title (de)
Wärmeübertrager

Title (fr)
Echangeur de chaleur

Publication
EP 1331464 A3 20030806 (DE)

Application
EP 03000982 A 20030117

Priority
DE 10202768 A 20020125

Abstract (en)
[origin: EP1331464A2] The heat transfer system, between a liquid and a gas and especially for vehicles, has a number of spaced and parallel tubes (2) with ribs (7) between them and each rib has a number of successive and parallel gills (10). Each gill has at least two longitudinal sections (12,13), where two neighboring sections are angled in opposite directions across the longitudinal gill line. All the gills on one rib are arranged so that successive longitudinal sections are angled in the same direction.

IPC 1-7
F28F 1/12; **F28D 1/053**

IPC 8 full level
F28D 1/053 (2006.01); **F28F 1/12** (2006.01)

CPC (source: EP)
F28D 1/05366 (2013.01); **F28F 1/128** (2013.01)

Citation (search report)

- [X] US 6170566 B1 20010109 - BLUMEL BARRY W [US], et al
- [X] DE 9404009 U1 19950713 - BEHR GMBH & CO [DE]
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- [A] EP 0275813 A1 19880727 - UNITED TECHNOLOGIES CORP [US]
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Cited by
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Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)
EP 1331464 A2 20030730; **EP 1331464 A3 20030806**; **EP 1331464 B1 20060524**; AT E327492 T1 20060615; DE 10202768 A1 20030731; DE 50303414 D1 20060629; ES 2263854 T3 20061216

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