

Title (en)
Multi-tube heat exchanger

Title (de)
Mehrröhrwärmetauscher

Title (fr)
Echangeur de chaleur à tubes multiples

Publication
EP 1562016 A3 20100915 (EN)

Application
EP 05002286 A 20050203

Priority
JP 2004027861 A 20040204

Abstract (en)
[origin: EP1562016A2] Multi-tube heat exchanger (1) including a bundle of tubes (6) which form fluid passages of first heat exchanging fluid, an outer shell (1a) which covers the bundle of tubes (6) and form a fluid passage of second heat exchanging fluid, and a baffle plate (7) which is arranged inside the outer shell (1a) in a direction intersecting an axial direction of the bundle of tubes (6) and provided with a plurality of through holes (8) through which respective tubes (6) of the bundle are passed. Each of the through holes (8) has such a shape that a portion of an outer peripheral face of the tube (6) comes into contact with a portion of an inner peripheral face of the through hole (8), and a gap for passing the second heat exchanging fluid is formed between the other portion of the inner peripheral face and the outer peripheral face of the tube (6).

IPC 8 full level
F28D 7/16 (2006.01); **F28F 9/02** (2006.01); **F28F 9/013** (2006.01); **F28F 9/22** (2006.01); **F28F 9/24** (2006.01)

CPC (source: EP KR US)
F28D 7/16 (2013.01 - EP KR US); **F28F 9/22** (2013.01 - EP US); **F28F 9/24** (2013.01 - KR)

Citation (search report)

- [X] GB 2313438 A 19971126 - USUI KOKUSAI SANGYO KK [JP]
- [Y] EP 0568713 A1 19931110 - DEGGENDORFER WERFT EISENBAU [DE]
- [Y] JP 2001033187 A 20010209 - CALSONIC KANSEI CORP, et al
- [I] FR 2340524 A1 19770902 - COMMISSARIAT ENERGIE ATOMIQUE [FR]
- [E] EP 1683956 A1 20060726 - HINO MOTORS LTD [JP], et al

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 MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR LV MK YU

DOCDB simple family (publication)
EP 1562016 A2 20050810; EP 1562016 A3 20100915; JP 2005221118 A 20050818; KR 100640301 B1 20061031; KR 20050079222 A 20050809; US 2005167089 A1 20050804

DOCDB simple family (application)
EP 05002286 A 20050203; JP 2004027861 A 20040204; KR 20050008485 A 20050131; US 4889605 A 20050203