

Title (en)

Multi-tube heat exchanger

Title (de)

Mehrrohrwärmetauscher

Title (fr)

Echangeur de chaleur à tubes multiples

Publication

**EP 1562016 A2 20050810 (EN)**

Application

**EP 05002286 A 20050203**

Priority

JP 2004027861 A 20040204

Abstract (en)

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 1-7

**F28D 7/16; F28F 9/22**

IPC 8 full level

**F28F 9/02** (2006.01); **F28D 7/16** (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 (applicant)

- JP H056993 A 19930114 - MATSUSHITA ELECTRONICS CORP
- JP H06185891 A 19940708 - PHILLIPS PETROLEUM CO
- GB 2313438 A 19971126 - USUI KOKUSAI SANGYO KK [JP]

Citation (examination)

- US 5505254 A 19960409 - CHIBA TOMOHIRO [JP]
- JP S57202497 A 19821211 - HITACHI LTD

Designated contracting state (EPC)

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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