

Title (en)
Heat exchanger

Title (de)
Wärmetauscher

Title (fr)
Échangeur de chaleur

Publication
EP 2056057 A3 20130123 (EN)

Application
EP 08253579 A 20081031

Priority
• JP 2007285807 A 20071102
• JP 2008054179 A 20080305

Abstract (en)
[origin: EP2056057A2] A heat exchanger (2) includes a first member (4) and a second member (5). The first member (4) is provided with a main body (4a) and a heat transfer accelerating portion (3) formed on the main body (4a) as one unit. The second member (5) is formed with a recess (5a) dented from a reference surface (51) and functioning as a flow channel (21). The first member (4) and the second member (5) are joined with each other at the reference surface (51) in a state where a part, which deviates from the recess (5a) when the first and second members (4, 5) are joined, of the heat transfer accelerating portion (3) of the first member (4) is cut off and the rest of the heat transfer accelerating portion (3) is inserted into the recess of the second member (5).

IPC 8 full level
F28F 3/12 (2006.01); **F28F 3/04** (2006.01)

CPC (source: EP US)
F28F 3/048 (2013.01 - EP US); **F28F 3/12** (2013.01 - EP US); **F28F 13/06** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US); **Y10T 29/4935** (2015.01 - EP US)

C-Set (source: EP US)
H01L 2924/0002 + **H01L 2924/00**

Citation (search report)
• [XY] US 2004035555 A1 20040226 - NARA KENICHI [JP], et al
• [Y] US 2007227697 A1 20071004 - TAKAHASHI TAKAYUKI [JP]
• [Y] US 2004238162 A1 20041202 - SEILER THOMAS F [CA], et al
• [X] US 2007163749 A1 20070719 - MIYAHARA HIDEYUKI [JP]
• [X] DE 102005058204 A1 20070614 - PIERBURG GMBH [DE]

Cited by
CN110012637A; FR3137748A1; DE102012006122A1; WO2024008649A1; WO2019042635A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
EP 2056057 A2 20090506; EP 2056057 A3 20130123; EP 2056057 B1 20160406; US 2009114373 A1 20090507

DOCDB simple family (application)
EP 08253579 A 20081031; US 26207208 A 20081030