

Title (en)

Pipe in pipe heat exchanger with vibration reduction

Title (de)

Doppelrohr-Wärmetauscher mit Vibrationsminderung

Title (fr)

Échangeur de chaleur à tubes doubles avec un mécanisme de réduction des vibrations

Publication

**EP 2351978 A3 20121031 (EN)**

Application

**EP 11150196 A 20110105**

Priority

KR 20100002373 A 20100111

Abstract (en)

[origin: EP2351978A2] A heat exchanger is provided, including a first pipe, into which a first fluid may be introduced and flow, and a second pipe disposed in the first pipe, into which a second fluid may be introduced and flow. The first and second pipes may contact each other, to prevent the second pipe from vibrating.

IPC 8 full level

**F28D 7/10** (2006.01)

CPC (source: EP US)

**F28D 7/106** (2013.01 - EP US); **F28F 2240/00** (2013.01 - EP US); **F28F 2265/30** (2013.01 - EP US)

Citation (search report)

- [X] DE 202007010274 U1 20070927 - BSH BOSCH SIEMENS HAUSGERAETE [DE]
- [X] EP 1840495 A1 20071003 - T RAD CO LTD [JP]
- [X] JP 2009210224 A 20090917 - HITACHI CABLE
- [XI] DE 917009 C 19540823 - MANNESMANN AG
- [XA] EP 1431693 A1 20040623 - MATSUSHITA ELECTRIC IND CO LTD [JP]
- [XA] DE 19624030 A1 19971218 - KME SCHMOELE GMBH [DE]
- [XA] FR 362995 A 19060718 - PAUL DETERMES [FR]
- [A] FR 2608264 A1 19880617 - BRACON DANIEL [FR]
- [A] CA 2499865 A1 20060924 - RYBAK MILAN [CA]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2351978 A2 20110803; EP 2351978 A3 20121031**; CN 102121800 A 20110713; CN 102121800 B 20140312; KR 101608996 B1 20160405; KR 20110082411 A 20110719; US 2011168369 A1 20110714

DOCDB simple family (application)

**EP 11150196 A 20110105**; CN 201110009952 A 20110111; KR 20100002373 A 20100111; US 98747311 A 20110110