

Title (en)
WASTE HEAT RECOVERY AND CONVERSION SYSTEM AND RELATED METHODS

Title (de)
ABWÄRMERÜCKFÜHRUNGS- UND UMWANDLUNGSSYSTEM SOWIE ZUGEHÖRIGE VERFAHREN

Title (fr)
SYSTÈME DE RÉCUPÉRATION ET DE CONVERSION DE CHALEUR PERDUE ET PROCÉDÉS APPARENTÉS

Publication
EP 2841748 A4 20160309 (EN)

Application
EP 12820005 A 20120731

Priority

- US 201161457997 P 20110729
- US 201161457996 P 20110729
- US 201161457998 P 20110729
- US 201161457995 P 20110729
- US 2012048911 W 20120731

Abstract (en)
[origin: WO2013019761A1] Various embodiments of a waste heat recovery and conversion system are disclosed. In one exemplary embodiment, the waste heat recovery system may include a heat exchanger for transferring heat from a first fluid to a second fluid and a power conversion unit configured to convert the energy transferred from the first fluid to the second fluid into usable energy. The heat exchanger may include an outer duct defining an inlet and an outlet through which the first fluid flows in and out, respectively, of the outer duct. The heat exchanger may also include an inner duct disposed inside the outer duct and defining an inner channel inside the inner duct and an outer channel between an outer surface of the inner duct and an inner surface of the outer duct. The inner duct may define an internal flow channel through which the second fluid flows to exchange heat energy with the first fluid.

IPC 8 full level
F01K 23/02 (2006.01); **F01K 23/06** (2006.01); **F01K 23/10** (2006.01); **F01K 25/00** (2006.01); **F01K 25/02** (2006.01); **F01N 5/02** (2006.01); **F02G 5/02** (2006.01); **F28D 7/06** (2006.01); **F28D 7/16** (2006.01); **F28F 1/42** (2006.01)

CPC (source: EP US)
F01K 23/065 (2013.01 - EP US); **F01K 25/00** (2013.01 - EP US); **F28D 7/06** (2013.01 - EP US); **F28D 7/10** (2013.01 - EP US); **F28D 7/103** (2013.01 - EP US); **F28D 21/0003** (2013.01 - EP US); **F01N 5/02** (2013.01 - EP US)

Citation (search report)

- [X] EP 0884550 A2 19981216 - ISUZU CERAMICS RES INST [JP]
- [X] US 2010043415 A1 20100225 - CAPELLE ANDREAS [DE], et al
- [A] EP 0874143 A2 19981028 - ISUZU CERAMICS RES INST [JP]
- [A] EP 2215346 A1 20100811 - SENIOR UK LTD [GB]
- See references of WO 2013019761A1

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

DOCDB simple family (publication)
WO 2013019761 A1 20130207; EP 2841748 A1 20150304; EP 2841748 A4 20160309; EP 2841748 B1 20171115; ES 2659774 T3 20180319; US 2016047603 A1 20160218; US 2019316846 A1 20191017

DOCDB simple family (application)
US 2012048911 W 20120731; EP 12820005 A 20120731; ES 12820005 T 20120731; US 201214777347 A 20120731; US 201916357350 A 20190319