

Title (en)  
HEAT TRANSFER APPARATUS

Title (de)  
WÄRMEÜBERTRAGUNGSVORRICHTUNG

Title (fr)  
APPAREIL DE TRANSFERT DE CHALEUR

Publication  
**EP 2986830 A1 20160224 (EN)**

Application  
**EP 14734245 A 20140320**

Priority  
• JP 2013087420 A 20130418  
• JP 2014001646 W 20140320

Abstract (en)  
[origin: WO2014171067A1] A heat transfer apparatus includes: an evaporating portion that evaporates a working medium by heat of an exhaust gas from an internal combustion engine; a condensing portion that condenses the working medium having been evaporated; a circulation path portion that causes the working medium to circulate between the evaporating portion and the condensing portion; a heat storage member that is provided within the evaporating portion; and a supplying and collecting portion that supplies the working medium to the evaporating portion when the internal combustion engine starts, and that collects the working medium having been condensed when the internal combustion engine stops such that the working medium having been condensed does not contact with the heat storage member.

IPC 8 full level  
**F01P 11/20** (2006.01)

CPC (source: EP US)  
**F01N 5/02** (2013.01 - EP US); **F02G 5/02** (2013.01 - EP US); **F28D 15/0266** (2013.01 - EP US); **F28D 15/06** (2013.01 - EP US); **F28D 20/02** (2013.01 - EP US); **F01N 2240/02** (2013.01 - EP US); **F01N 2240/10** (2013.01 - EP US); **F01P 2011/205** (2013.01 - EP US); **Y02E 60/14** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US)

Citation (search report)  
See references of WO 2014171067A1

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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)  
**WO 2014171067 A1 20141023**; BR 112015021071 A2 20170718; CN 105102783 A 20151125; EP 2986830 A1 20160224; JP 2016509147 A 20160324; JP 5950054 B2 20160713; RU 2015144315 A 20170524; US 2016076426 A1 20160317

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**JP 2014001646 W 20140320**; BR 112015021071 A 20140320; CN 201480016553 A 20140320; EP 14734245 A 20140320; JP 2015540379 A 20140320; RU 2015144315 A 20140320; US 201414784992 A 20140320