

Title (en)
HEAT EXCHANGER

Title (de)
WÄRMETAUSCHER

Title (fr)
ÉCHANGEUR DE CHALEUR

Publication
EP 2745057 A2 20140625 (EN)

Application
EP 12770285 A 20120816

Priority
• TH 1101001578 A 20110817
• TH 2012000035 W 20120816

Abstract (en)
[origin: WO2013025178A2] The present invention discloses an apparatus for sustaining and releasing heat for boilers as per the preferred embodiment shown in Figure 1. The apparatus is preferably provided in a cylindrical form having at least one open end. The apparatus comprises a frame which can support the installation of heat sustaining materials, manufactured from heat resistant materials. It is also preferable to have at least 2 columns of bases extended along the side of the frame for supporting the installment. Heat sustaining materials are installed on the surface of the frame, the said materials are provided in the form of square or curved plate, which forms a square, polygonal or cylindrical shaped frame. The plates must have at least one pore, and must be punched to allow passage of air for ventilation of air and heat. The size of pores is varied depending on type of fuel being used. The heat exchange is conducted by heat conduction and radiation. The surface where heat radiation takes place may be varied by height in order to ensure the heat distribution and circulation. The plate at one end of the frame has a curved or straight profile for directing the flame toward the side surface of the frame. This will ensure circulation of flame on the side surface, and sustaining heat. The present invention improves the performance through the continuous heat radiation from heat sustaining materials.

IPC 8 full level
F24H 7/04 (2006.01); **F24H 9/18** (2006.01)

CPC (source: EP US)
F24H 7/0458 (2013.01 - EP US); **F24H 9/1836** (2013.01 - EP US); **F28D 20/0056** (2013.01 - EP US); **F28D 17/02** (2013.01 - EP US); **Y02E 60/14** (2013.01 - EP US)

Citation (search report)
See references of WO 2013025178A2

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 2013025178 A2 20130221; **WO 2013025178 A3 20131010**; AU 2012295611 A1 20140306; BR 112014003630 A2 20170314; CA 2845314 A1 20130221; CN 103732997 A 20140416; EP 2745057 A2 20140625; JP 2014527150 A 20141009; KR 20140057341 A 20140512; MX 2014001848 A 20141024; RU 2014104755 A 20150927; SG 2014008916 A 20140428; US 2014196865 A1 20140717; ZA 201401151 B 20141223

DOCDB simple family (application)
TH 2012000035 W 20120816; AU 2012295611 A 20120816; BR 112014003630 A 20120816; CA 2845314 A 20120816; CN 201280039496 A 20120816; EP 12770285 A 20120816; JP 2014525969 A 20120816; KR 20147007004 A 20120816; MX 2014001848 A 20120816; RU 2014104755 A 20120816; SG 2014008916 A 20120816; US 201214238906 A 20120816; ZA 201401151 A 20140214