

Title (en)

High-efficiency heat exchanger for boilers and hot air generators

Title (de)

Hocheffizienter Wärmetauscher für Kessel und Warmluftgeneratoren

Title (fr)

Échangeur de chaleur à haute efficacité pour des chaudières et des générateurs d'air chaud

Publication

EP 2884201 A1 20150617 (EN)

Application

EP 14197365 A 20141211

Priority

IT MI20132086 A 20131213

Abstract (en)

A heat exchanger (1) is described comprising a combustion chamber (3), suitable to receive a burner (111), and a plurality of heat exchanger tubes (4) connected to said combustion chamber (3) and to one another by means of two tube plates (5, 6) of which at least one provided with a manifold (7) for releasing the combustion products. Each tube (4) of said plurality of heat exchanger tubes (4) has a flattened profile over its entire length and the combustion chamber (3) has a cylindrical shaped body.

IPC 8 full level

F24H 3/06 (2006.01); **F24H 3/08** (2006.01); **F28D 1/053** (2006.01); **F28F 1/02** (2006.01)

CPC (source: EP)

F24H 3/065 (2013.01); **F24H 3/087** (2013.01); **F28D 1/05383** (2013.01); **F28D 7/1615** (2013.01); **F28D 21/0008** (2013.01); **F28F 1/025** (2013.01); **F28F 1/426** (2013.01); **F28F 2001/027** (2013.01)

Citation (applicant)

- EP 1429085 A1 20040616 - APENGROUP S P A [IT]
- US 5271376 A 19931221 - LU LIN-TAO [US], et al

Citation (search report)

- [XY] US 5271376 A 19931221 - LU LIN-TAO [US], et al
- [XI] US 2005092316 A1 20050505 - SCHONBERGER MARTY L SR [US]
- [X] FR 2605091 A1 19880415 - TECNOCLIMA SPA [IT]
- [X] US 5094224 A 19920310 - DIESCH MARK A [US]
- [Y] WO 2009095944 A2 20090806 - TECNOCLIMA SPA [IT], et al

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RU183751U1; WO2022184814A1

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)

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DOCDB simple family (application)

EP 14197365 A 20141211; IT MI20132086 A 20131213; RU 2014149802 A 20141209