

Title (en)
A HYBRID BOILER

Title (de)
HYBRIDER KESSEL

Title (fr)
CHAUDIÈRE HYBRIDE

Publication
EP 4209720 A1 20230712 (EN)

Application
EP 22460082 A 20221229

Priority
PL 44008722 A 20220105

Abstract (en)
A hybrid boiler comprises a fired pipe heat exchanger encased in an internal jacket (9), a pipe coil (7) encased in an external jacket (1) which on the one side is closed with a lid (12) incorporating a burner plate, and on the opposite side is closed with a condensate tray (4), water inlet (3) and outlet (11) stub pipes and flue gas exhaust stub pipe (5). Between the external jacket (1) and the internal jacket (9) there is a longitudinal partition (8) separating the internal space between the said jackets (1, 9) into two chambers which are connected to each other below the lid (12), and the chamber formed between the longitudinal partition (8) and the internal jacket (9) is connected to the chamber inside the internal jacket (9) above the condensate tray, where placed in the chamber between the external jacket (1) and the longitudinal partition (8) is a pipe coil (7) fitted with a cooling agent inlet stub pipe (10) and cooling agent outlet stub pipe (2), and the water inlet stub pipe (3) is connected to the said chamber formed between the external jacket (1) and the longitudinal partition (8), whereas the water outlet stub pipe (11) is connected to the chamber formed within the internal jacket (9).

IPC 8 full level
F24D 12/02 (2006.01); **F24H 4/02** (2022.01); **F24H 4/04** (2006.01); **F24H 8/00** (2022.01)

CPC (source: EP PL)
F24D 12/02 (2013.01 - EP); **F24H 1/52** (2013.01 - PL); **F24H 4/02** (2013.01 - EP PL); **F24H 8/00** (2013.01 - EP PL); **F24H 9/0015** (2013.01 - PL); **F25B 39/00** (2013.01 - PL)

Citation (applicant)
• EP 3643994 A1 20200429 - LG ELECTRONICS INC [KR]
• GB 2503781 A 20140108 - CLK CORP [KR]
• PL 234215 B1 20200131 - BUTRYM WOJCIECH [PL]
• WO 2013141728 A2 20130926 - AIC SPOLKA AKCYJNA [PL]

Citation (search report)
• [X] DE 19819411 A1 19991111 - HA SKI HAUSTECHNIK UND INNOVAT [DE]
• [AD] WO 2013141728 A2 20130926 - AIC SPOLKA AKCYJNA [PL]
• [A] KR 20130130263 A 20131202 - KITURAMI BOILER [KR]
• [A] EP 0260653 A2 19880323 - DYNAMIC ENERGY RESEARCH [IT]

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4209720 A1 20230712; PL 244327 B1 20240108; PL 440087 A1 20230710

DOCDB simple family (application)
EP 22460082 A 20221229; PL 44008722 A 20220105