

Title (en)

A FLUIDIZED BED HEAT EXCHANGER AND A CORRESPONDING INCINERATION APPARATUS

Title (de)

FLIESSBETTWÄRMETAUSCHER UND ENTSPRECHENDE VERBRENNUNGSVORRICHTUNG

Title (fr)

ÉCHANGEUR DE CHALEUR À LIT FLUIDISÉ ET APPAREIL D'INCINÉRATION CORRESPONDANT

Publication

EP 3222911 A1 20170927 (EN)

Application

EP 16161403 A 20160321

Priority

EP 16161403 A 20160321

Abstract (en)

A fluidized bed heat exchanger, which comprises at least one inlet opening (18), a heat exchange zone (40) and at least one outlet opening (48), arranged to each other in a way to allow a stream of solids, deriving from an associated combustor (C), to enter the heat exchanger (10) via said opening (18), to pass through said heat exchange zone (40) and to leave the heat exchanger (10) via said outlet opening (48), wherein the inlet opening (18) is arranged at an upper part of a runner (20), the runner (20) extends downwardly from an upper section of the heat exchanger towards a bottom-section (16r) of the heat exchanger (10) and ends close to said bottom-section (16r), thereby allowing a downwardly oriented flow of the solids through said runner (20), the runner (20) is open at its end close to said bottom-section (16r), thereby providing at least one passage (TR) for the solids to leave the runner (20) and to flow into at least one heat exchange zone (40), which is arranged adjacent to said runner (20) and provided with a fluidized bottom (16c), the outlet opening (48) is arranged at an upper part of the heat exchanger (10) and extends from the at least one heat exchange zone (40).

IPC 8 full level

F22B 31/00 (2006.01); **F23C 10/10** (2006.01)

CPC (source: EP KR)

F22B 31/0084 (2013.01 - EP KR); **F23C 10/10** (2013.01 - EP KR); **F23C 2206/103** (2013.01 - EP KR)

Citation (applicant)

EP 0495296 A2 19920722 - FOSTER WHEELER ENERGY CORP [US]

Citation (search report)

- [X] US 6293781 B1 20010925 - HYPPAENEN TIMO [FI]
- [X] EP 1612479 A2 20060104 - KVAERNER POWER OY [FI]
- [X] DE 4135582 A1 19930506
- [I] US 6962676 B1 20051108 - HYPPAENEN TIMO [FI]
- [A] EP 0679837 A2 19951102 - FOSTER WHEELER ENERGY CORP [US]

Cited by

CN111271699A

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)

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