

Title (en)

Grate and method of burning a granular fuel material

Title (de)

Gitter und Verfahren zum Brennen eines körnigen Brennstoffmaterials

Title (fr)

Grille et procédé de combustion d'un matériau combustible granulaire

Publication

EP 2642198 A3 20160622 (EN)

Application

EP 13159838 A 20130319

Priority

CA 2771112 A 20120321

Abstract (en)

[origin: CA2771112A1] The substantially horizontally-disposed grate is used for burning a granular fuel material, for instance a biomass material, to be fed onto a loading area of the grate while a primary air feed is coming from below the grate. The grate includes a perforated bed floor having a downwardly-sloping upper surface converging towards a discharge opening where char is concentrated as the granular fuel material is burned during operation. The grate also includes an elongated and bottom-perforated char-receiving conduit positioned immediately under the bed floor. The char-receiving conduit has an inlet end positioned under the discharge opening, and an outlet end that is opposite the inlet end. The char-receiving conduit downwardly slopes between the inlet end and the outlet end. A method of burning a granular fuel material is also disclosed. The proposed concept can increase the overall thermal efficiency of a heat generator and reduce gas and particle emissions in the atmosphere.

IPC 8 full level

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CPC (source: EP US)

F23B 10/02 (2013.01 - EP US); **F23B 30/02** (2013.01 - EP US); **F23B 60/02** (2013.01 - EP US); **F23B 90/06** (2013.01 - EP US); **F23G 5/002** (2013.01 - US); **F23G 5/006** (2013.01 - US); **F23G 5/027** (2013.01 - US); **F23G 5/444** (2013.01 - US); **F23J 1/00** (2013.01 - EP US); **F23H 2900/09041** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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Designated extension state (EPC)

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CA 2771112 A1 20120515; **CA 2771112 C 20120911**; EP 2642198 A2 20130925; EP 2642198 A3 20160622; EP 2642198 B1 20181128; EP 3447375 A1 20190227; US 2013247801 A1 20130926

DOCDB simple family (application)

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