

Title (en)

Grate for burning a granular fuel material

Title (de)

Gitter zum Verbrennen eines körnigen Brennstoffmaterials

Title (fr)

Grille de combustion pour un matériau combustible granulaire

Publication

EP 2642198 A2 20130925 (EN)

Application

EP 13159838 A 20130319

Priority

CA 2771112 A 20120321

Abstract (en)

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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