

Title (en)

SOLID FUEL BURNER, COMBUSTION APPARATUS USING SOLID FUEL BURNER

Title (de)

FESTBRENNSTOFFBRENNER, BRENNVORRICHTUNG MIT DEM FESTBRENNSTOFFBRENNER

Title (fr)

BRÛLEUR À COMBUSTIBLE SOLIDE, APPAREIL DE COMBUSTION UTILISANT UN BRÛLEUR À COMBUSTIBLE SOLIDE

Publication

EP 2273193 A1 20110112 (EN)

Application

EP 09731364 A 20090403

Priority

- JP 2009001573 W 20090403
- JP 2008102048 A 20080410

Abstract (en)

An air nozzle provided on the outer side of a fuel nozzle 10 of a solid fuel burner 1 is divided into a plurality of regions 12 to 17, and has means 43 and 44 for regulating air flow rates in nozzles 12 and 13 divided in the upper and lower direction. The nozzles (regions) 12 to 17 are connected to only the nozzle wall 19 and have obstacles 20 and 21 in the circumferential direction, dividing the inside of the nozzle into a plurality of regions, and by changing air flow rates in the respective regions in the outermost peripheral air nozzle, a deviation in momentum is caused in the vertical direction of the burner 1, a flame forming position is changed, and a combustion gas temperature at the furnace outlet, temperatures of a heat transfer tube installed on the furnace wall surface and a fluid flowing in the heat transfer tube or temperatures of heat transfer tubes provided in the furnace and a flue on the downstream side and temperatures of fluids flowing in the heat transfer tubes are controlled to be constant.

IPC 8 full level

F23C 7/00 (2006.01); **F23D 1/00** (2006.01)

CPC (source: EP US)

F23C 7/008 (2013.01 - EP US); **F23D 1/00** (2013.01 - EP US); **F23D 2201/10** (2013.01 - EP US); **F23D 2201/20** (2013.01 - EP US); **F23D 2900/00003** (2013.01 - EP US)

Cited by

CN110848672A; CN104595890A; CN112166288A; EP2679899A4

Designated contracting state (EPC)

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 SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

EP 2273193 A1 20110112; **EP 2273193 A4 20140521**; **EP 2273193 B1 20160316**; AU 2009234947 A1 20091015; AU 2009234947 B2 20130516; BR PI0911632 A2 20151013; CA 2719040 A1 20091015; CA 2719040 C 20160105; JP 5190509 B2 20130424; JP WO2009125566 A1 20110728; KR 101660051 B1 20160926; KR 20110000572 A 20110103; US 2011053102 A1 20110303; WO 2009125566 A1 20091015

DOCDB simple family (application)

EP 09731364 A 20090403; AU 2009234947 A 20090403; BR PI0911632 A 20090403; CA 2719040 A 20090403; JP 2009001573 W 20090403; JP 2010507142 A 20090403; KR 20107025076 A 20090403; US 93415809 A 20090403