

Title (en)

BURNER, AND COMBUSTION EQUIPMENT AND BOILER COMPRISING BURNER

Title (de)

BRENNER UND DEN BRENNER ENTHALTENDE(R) VERBRENNUNGSEINRICHTUNG UND KESSEL

Title (fr)

BRÛLEUR, ET ÉQUIPEMENT DE COMBUSTION ET CHAUDIÈRE COMPRENANT UN BRÛLEUR

Publication

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Application

EP 07739749 A 20070327

Priority

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Abstract (en)

[origin: EP2068077A1] The present invention provides a solid fuel burner, which, while rendering the capacity larger than that in the conventional art, can suppress an increase in an unignited region and thus can realize the prevention of an increase in NOx concentration in a combustion gas and the prevention of a lowering in combustion efficiency, and a combustion equipment and boiler including the burner. The burner includes a fuel-containing fluid supply nozzle (12) which supplies a fuel-containing fluid, from a connecting part in a fluid transfer flow passage (10) for transferring a fuel-containing fluid including a fuel and a medium for transfer of the fuel, toward an outlet part provided on the wall of a furnace (4). The fuel-containing fluid supply nozzle (12) in its cross section perpendicular to the direction of flow of the fluid is in a rectangular, elliptical, or substantially elliptical form having major and minor axis parts from a connecting part (10a) in the fluid transfer flow passage (10) toward the outlet part provided on the wall surface of the furnace (4). Further, the area of a cross section perpendicular to the direction of flow of the fluid is gradually increased from the connecting part in the fluid transfer flow passage (10) toward the outlet part. One or more air supply nozzles (15) for supplying combustion air are provided on the outer peripheral part of the nozzle (12).

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Citation (search report)

- [X] US 5483906 A 19960116 - HUFTON PETER F [GB]
- [Y] US 6889619 B2 20050510 - OKAZAKI HIROFUMI [JP], et al
- [Y] US 2006000467 A1 20060105 - HIBSHMAN JOELL R II [US], et al
- [Y] US 5545031 A 19960813 - JOSHI MAHENDRA L [US], et al
- [A] US 5392720 A 19950228 - BRIGGS OLIVER G [US], et al
- See references of WO 2008038426A1

Cited by

EP2886956A4; EP3438533A1; US11248785B2; WO2019025289A1

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