

Title (en)

FUEL NOZZLE HAVING EXPANSION SLITS FOR A PULVERIZED-COAL BURNER

Title (de)

BRENNSTOFFDÜSE MIT DEHNUNGSSCHLITZEN FÜR EINEN KOHLENSTAUBBRENNER

Title (fr)

INJECTEUR DE COMBUSTIBLE À FENTES DE DILATATION POUR UN BRÛLEUR À CHARBON PULVÉRISÉ

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Application

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Abstract (en)

[origin: WO2020165357A1] The invention relates to a fuel nozzle (100) for a burner for burning particulate fuel, in particular powdered, carbon-containing fuel such as coal or biomass, the fuel nozzle comprising a fuel pipe portion (110), which is to be associated with a fuel pipe or primary-air pipe (200) of the burner, and comprising an opening portion (120), which is integrally connected to the fuel pipe portion (110) and is provided for forming an opening region (210) of the fuel pipe or primary-air pipe (200), the fuel pipe portion (110) having a fuel-pipe-side end (111) for connecting to the fuel pipe or primary-air pipe (200) and the opening portion (120) having an opening-side end (121). The aim of the invention is to provide a solution which allows the service life of burners for burning particulate fuel to be optimized by reducing thermal stresses in the material, in particular in the opening region of the fuel pipe or primary-air pipe (200) or in the fuel nozzle (100). This is achieved because the fuel nozzle (100) has expansion slits (160) for compensating a thermal alternating load on the fuel nozzle (100), which expansion slits are arranged along the circumference of the fuel nozzle, extend axially along the longitudinal extent of the fuel nozzle toward the opening-side end (121), end in an opening-side end face (122) of the fuel nozzle (100) and are in the form of notches that extend through and sever the material wall of the fuel nozzle (100) in the radial direction.

IPC 8 full level

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