

Title (en)

GAS TURBINE BURNER WITH PILOT FUEL-AIR MIXING

Title (de)

GASTURBINENBRENNER MIT BRENNSTOFF-LUFT-PILOTMISCHUNG

Title (fr)

BRÛLEUR DE TURBINE À GAZ À MÉLANGE D'AIR ET DE CARBURANT PILOTE

Publication

**EP 3620718 A1 20200311 (EN)**

Application

**EP 18193084 A 20180907**

Priority

EP 18193084 A 20180907

Abstract (en)

The invention relates to burner (1) with a burner head comprising a main mixing tube (2) for premixing combustion air and fuel, wherein the main mixing tube (2) is provided with a pilot burner system (3) in its downstream part, wherein the pilot burner system (3) comprises an annular mixing cavity (4) with an entrance (5) for air in its upstream end, with an entrance (6) for pilot fuel and with an outlet nozzle (7) in its downstream end, wherein a pilot mixing tube (8) extends inside the mixing cavity (4) between the air entrance (5) and the outlet nozzle (7) with a pilot mixing tube (8) length exceeding a distance between the upstream and the downstream ends of the mixing cavity (4).

IPC 8 full level

**F23R 3/28** (2006.01); **F23D 11/10** (2006.01); **F23D 11/40** (2006.01); **F23D 14/02** (2006.01); **F23R 3/34** (2006.01); **F23R 3/50** (2006.01)

CPC (source: EP)

**F23D 11/103** (2013.01); **F23D 11/402** (2013.01); **F23D 14/02** (2013.01); **F23R 3/286** (2013.01); **F23R 3/343** (2013.01); **F23R 3/50** (2013.01);  
**F23C 2900/07002** (2013.01); **F23D 2203/007** (2013.01); **F23D 2900/14701** (2013.01); **F23R 2900/03343** (2013.01)

Citation (applicant)

- EP 1389713 A1 20040218 - ALSTOM SWITZERLAND LTD [CH]
- EP 2268975 B1 20161214 - SIEMENS AG [DE]

Citation (search report)

- [A] EP 3290804 A1 20180307 - SIEMENS AG [DE]
- [AD] EP 1389713 A1 20040218 - ALSTOM SWITZERLAND LTD [CH]
- [AD] EP 2268975 B1 20161214 - SIEMENS AG [DE]

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3620718 A1 20200311**; EP 3821174 A1 20210519; EP 3821174 B1 20230823; WO 2020048880 A1 20200312

DOCDB simple family (application)

**EP 18193084 A 20180907**; EP 19769056 A 20190830; EP 2019073185 W 20190830