

Title (en)

Burner for operating a combustion chamber

Title (de)

Brenner zum Betrieb einer Brennkammer

Title (fr)

Brûleur pour le fonctionnement d'une chambre de combustion

Publication

EP 0833104 A3 19980729 (DE)

Application

EP 97810621 A 19970902

Priority

DE 19639301 A 19960925

Abstract (en)

[origin: EP0833104A2] The burner has a swirl-inducer for the combustion air current, into which fuel is injected by nozzles. A mixing section is arranged downstream of the swirl-inducer, a first part of which contains a large number of transit passages. The transit passages deliver a current generated in the inducer into a mixing passage leading to the burner front (70). One or more toroidal notches (71,74) are formed in the burner front towards the chamber. The notches may describe a semi- or quarter-circle, in the latter case joining onto an edge (75) set back from the front. The notch can begin at the join between the inner wall of mixing tubes (20) forming part of the mixing section and the burner front. A passage can be provided, which leads into the toroidal current (72), to deliver secondary air or fuel. The number of transit passages in the mixing section can be the same as the number of currents generated in the swirl-inducer.

IPC 1-7

F23D 11/40; **F23C 7/00**; **F23D 17/00**

IPC 8 full level

F23D 14/02 (2006.01); **F23C 7/00** (2006.01); **F23D 11/40** (2006.01); **F23D 17/00** (2006.01)

CPC (source: EP)

F23C 7/002 (2013.01); **F23D 11/402** (2013.01); **F23D 17/002** (2013.01); **F23C 2202/40** (2013.01); **F23C 2900/07002** (2013.01); **F23D 2209/20** (2013.01); **F23D 2214/00** (2013.01); **F23D 2900/00015** (2013.01)

Citation (search report)

- [AD] EP 0704657 A2 19960403 - ABB MANAGEMENT AG [CH]
- [AP] EP 0780630 A2 19970625 - ABB RESEARCH LTD [CH]
- [A] US 2806517 A 19570917 - TE NUYL JOHANNES A
- [A] US 4373325 A 19830215 - SHEKLETON JACK R
- [A] PATENT ABSTRACTS OF JAPAN vol. 095, no. 010 30 November 1995 (1995-11-30)

Cited by

EP1389713A1; US7871262B2; DE19859829A1; EP1087178A1; US7140183B2; US6702574B1; WO2004015332A1; US6363725B1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

DE 19639301 A1 19980326; CN 1109843 C 20030528; CN 1185559 A 19980624; DE 59703346 D1 20010517; EP 0833104 A2 19980401; EP 0833104 A3 19980729; EP 0833104 B1 20010411; JP 3904684 B2 20070411; JP H10103620 A 19980421

DOCDB simple family (application)

DE 19639301 A 19960925; CN 97119554 A 19970925; DE 59703346 T 19970902; EP 97810621 A 19970902; JP 25637597 A 19970922