

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.

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IPC 8 full level
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CPC (source: EP)
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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

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