

Title (en)

Burner for a premixing combustion of a liquid and/or a gaseous fuel

Title (de)

Brenner für eine Vormischverbrennung eines flüssigen und/oder gasförmigen Brennstoffes

Title (fr)

Brûleur pour une combustion à mélange préalable d'un combustible liquide et/ou gazeux

Publication

EP 0503319 B1 19960424 (DE)

Application

EP 92102736 A 19920219

Priority

CH 73491 A 19910312

Abstract (en)

[origin: CA2061746A1] In a burner for premixing-type combustion of a liquid and/or gaseous fuel, which essentially comprises hollow conical part-bodies (1, 2) positioned one upon the other, the center lines of which extend mutually offset in the longitudinal direction, whereupon tangential inlet openings (1b, 2b) are formed on both sides of the burner, a fuel (5a) is admixed to the combustion air (13) flowing into the interior (3) of the burner in that area. This admixture is accomplished via a number of nozzles (9, 10), which act in the region of the inlet openings (1b, 2b). The fuel through these nozzles is injected with a small spray cone angle in the longitudinal direction of the slot. The fuel vaporization takes place essentially only in the inlet openings of the burner, with the result that only a fuel vapor enters the interior (3). A further central nozzle (4) supplied with a liquid and/or gaseous fuel provides assistance in the form of a limit fuel quantity. The ignition of the mixture (4a, 5a, 13) takes place at the outlet of the burner, stabilization of the flame front (14) being brought about in the region of the burner aperture by a return flow zone (15). (Fig. 1)

IPC 1-7

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

IPC 8 full level

F23D 11/40 (2006.01); **F23D 17/00** (2006.01); **F23R 3/12** (2006.01); **F23R 3/28** (2006.01); **F23R 3/30** (2006.01)

CPC (source: EP US)

F23D 11/402 (2013.01 - EP US); **F23D 17/002** (2013.01 - EP US); **F23R 3/12** (2013.01 - EP US); **F23R 3/286** (2013.01 - EP US); **F23R 3/30** (2013.01 - EP US); **F23C 2900/07002** (2013.01 - EP US)

Cited by

CN110195864A; EP0592717A1; US5482457A; DE19854382A1; DE19854382B4; US7997896B2; US6360971B1; WO9523316A1; WO2005121648A1

Designated contracting state (EPC)

CH DE FR GB IT LI NL

DOCDB simple family (publication)

EP 0503319 A2 19920916; **EP 0503319 A3 19930224**; **EP 0503319 B1 19960424**; CA 2061746 A1 19920913; CH 682952 A5 19931215; DE 4113681 A1 19920917; DE 59206081 D1 19960530; JP H04320711 A 19921111; US 5244380 A 19930914

DOCDB simple family (application)

EP 92102736 A 19920219; CA 2061746 A 19920224; CH 73491 A 19910312; DE 4113681 A 19910426; DE 59206081 T 19920219; JP 5140692 A 19920310; US 84416992 A 19920302