

Title (en)

Burner for the combustion of fuels with reduced production of nitric oxides.

Title (de)

Brenner zum Verbrennen von Brennstoffen unter verminderter Bildung von Stickoxiden.

Title (fr)

Brûleur pour la combustion de combustibles avec diminution de la formation des oxydes d'azote.

Publication

EP 0229231 A2 19870722 (DE)

Application

EP 86113814 A 19861006

Priority

DE 3600665 A 19860113

Abstract (en)

1. Burner, for the combustion of liquid and/or gaseous fuels with reduced formation of nitrous oxides, in which burner lances (2, 3) are led through an air box (1) and surrounded by a first guide tube (5), the entry opening of which for primary air is provided within the air box (1) and the exit opening (6) of which is provided within the burner throat (7), which is separated from the air box (1) by a cover plate (9), wherein a secondary air duct feed is arranged within the burner throat (7), is connected at the entry side by way of tubes (18) with the air box (1) and has an exit cross-section lying downstream of the exit cross-section (6) of the first guide tube (5) and wherein a further guide tube is provided within the burner throat (7) and arranged for the conduction of recirculating flue gases at a radial spacing from the burner throat (7) and the first guide tube (5) and at an axial spacing from the cover plate (9) of the air box (1), characterised thereby, that the further guide tube consists of a muffle (13), which is built up of non-metallic sectors (14), which are resistant to corrosion and unaffected by changes in temperature and which are movable one relative to the other and form a self-supporting annular body, and that the muffle (13) is supported and fastened at the burner throat (7) and penetrated by the tubes (18), which form the secondary air guide and are of a material which is resistant to corrosion and unaffected by changes in temperature.

Abstract (de)

Der Brenner dient zum Verbrennen von flüssigen und/oder gasförmigen Brennstoffen unter verminderter Bildung von Stickoxiden. Er weist Brennerlanzen (2,3) auf, die von einem von Primärluft durchströmten Führungsrohr (5) umschlossen sind und in eine Brennerkehle (7) hineinragen. In der Brennerkehle (7) ist mit radialem Abstand unter Bildung eines Rauchgasrezirkulationskanales eine nichtmetallische, temperatur- und korrosionsbeständige Muffel (13) angeordnet. Die Muffel (13) ist von sekundärluftführenden Rohren (18) aus einem temperatur- und korrosionsbeständigen Werkstoff durchdrungen.

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IPC 8 full level

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