Title (en)

BURNER

Publication

EP 0283435 B1 19910123 (DE)

Application

EP 88810113 A 19880225

Priority

CH 95887 A 19870313

Abstract (en)

[origin: US4957427A] The burner has a motor, a fuel pump and a fan. An easily replaceable component unit (27), the drive shaft (33) of which is coupled to the burner motor, is surrounded by the flame tube (21). The component unit (27) has a drive shaft (33), supported in an adaptor sleeve (37), for driving the gasifier (17). When the burner is started up, the rotatable gasifier (17) is heated by the heater (39). Once the gasifier has reached a predetermined temperature, the supply of fuel takes place through the line segment (19') and through the nozzle (71) to the immediate vicinity of the inner wall of the gasifier (17). Because of the rapid rotation, the fuel is distributed over the entire inner wall of the gasifier (17) and evaporates. Particularly in the mixing head (29), the evaporated fuel mixes with the combustion air flowing in through the opening (77) and is directed radially to the outside by a deflector (31, 31'). Shortly after leaving the mixing head (29), the flame touches the short flame tube (21) and emerges from it. After a short travel in the flame tube, the flame can expand and decompress. As a result, a high flame temperature is avoided, and the formation of nitrogen oxides is diminished. A portion of the combustion gases is recirculated through the recirculation opening (79) and serves to heat the gasifier (17) after the shutoff of the electric heater (39).

IPC 1-7

F23D 11/06; F23D 11/44

IPC 8 full level

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CPC (source: EP KR US)

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Cited by

EP0378517A3; CH696153A5; EP0346284A3; GB2267961A; GB2267961B; WO9960306A1; WO9208929A1

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