

Title (en)

A heating boiler with flue-gas recirculation and a combustion chamber unit for such boilers.

Title (de)

Heizkessel mit Rauchgasrezirkulation und Brennkammereinheit für solche Kessel.

Title (fr)

Chaudière de chauffage avec récirculation de gaz de fumée et chambre de combustion pour telles chaudières.

Publication

**EP 0598691 A1 19940525 (EN)**

Application

**EP 93850219 A 19931117**

Priority

SE 9203460 A 19921118

Abstract (en)

A heating boiler (10) which operates with flue-gas recirculation, said boiler comprising a water magazine (11) which is defined by an outer shell (12) and an inner shell (13) of circular cross-section, and two outer walls (25, 27) and a cylindrical combustion chamber (20) mounted inwardly of the water magazine (11) and comprising a plurality of surrounding flue-gas channels (17) which are mutually divided by longitudinally extending flanges (15) or the like disposed around the periphery of the circular inner shell (13) of the water magazine. The combustion chamber (20) is defined by a cylindrical pipe (16), a first combustion-chamber wall (18) which is connected to one end of said pipe and which is provided with a burner-accommodating opening, and a second combustion-chamber wall (19) connected to the other end of the pipe (16). The cylindrical pipe (16) is provided with a saddle-shaped outlet (22) which is located in the vicinity of said second wall (19) and which extends at most around half the circumference of the pipe (16). The outlet (22) has communication with a first group of flue-gas channels (17a) which include those flue gas channels that are located in the near vicinity of said half circumference and which, in turn, are connected solely to a flue-gas turning chamber (14) on the burner side delimited by the outer wall (25) and the first combustion-chamber wall (18). The flue-gas turning chamber (14) is connected with the combustion chamber (20) by means of a gap (23) located in the vicinity of the burner-accommodating opening, and is also connected to a second group of flue-gas channels (17b) including the remainder of the flue gas channels, which are connected to a flue-gas pipe (28) which extends through the other outer wall (27), the pipe (28) communicating with the surroundings. <IMAGE>

IPC 1-7

**F23C 9/00**; **F24H 1/26**; **F24H 9/00**; **F23M 9/06**

IPC 8 full level

**F23C 3/00** (2006.01); **F23C 9/08** (2006.01); **F24H 1/26** (2006.01)

CPC (source: EP)

**F23C 3/00** (2013.01); **F23C 9/08** (2013.01); **F24H 1/263** (2013.01)

Citation (search report)

- [A] DE 4035262 A1 19920507 - SBS B SCHMIDT GMBH & CO [DE]
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- [A] EP 0428117 A2 19910522 - VIESSMANN WERKE KG [DE]
- [A] EP 0166703 A2 19860102 - CTC AB [SE]
- [A] DE 3048044 C2 19830609

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