Title (en)

MOBILE THERMAL AFTER-BURNING INSTALLATION FOR A COMBUSTIBLE WASTE GAS MIXTURE

Publication

EP 0205841 B1 19890809 (DE)

Application

EP 86106088 A 19860503

Priority

DE 3516085 A 19850504

Abstract (en)

[origin: EP0205841A1] 1. Mobile thermal after-burning installation for a combustible waste gas mixture which possibly contains particles of dust or soot, condensable fractions or condensed liquid fractions, comprising a unit assembly arrangement, consecutive in the longitudinal direction, of burner(s) (1) for auxiliary energy such as fuel oil, natural gas or the like, high-temperature combustion chamber (2), low-temperature combustion chamber (4) with respective annular cylindrical jacket spaces surrounding the combustion chambers, annular gap-shaped inflow duct (6), adjoining the jacket space of the high-temperature combustion chamber (2) on the outflow side, of an annular mixing nozzle (3), which receives the waste gas mixture (16) to be burnt through the inflow duct (6), upwardly deflected chimney (5) and supply means for the auxiliary energy (18), for combustion air (14), for auxiliary air (15) and for the waste gas mixture (16) to be burnt, with heat exchange devices (11, 12, 13) for the preheating of the combustion air, of the auxiliary air and of the waste gas mixture (16) for the heating and combustion by means of support flame(s) generated in burner(s) (1) in the high-temperature combustion chamber (2) and in the low-temperature combustion chamber (4), characterized by the following features : a) the feed pipe (16) for the waste gas mixture leads tangentially on the upstream side into the jacket space of the high-temperature combustion chamber (2) and feeds the waste gas mixture through arcuate vanes to the interposed annular mixing nozzle (3) to generate a spin in the outflow direction, b) the feed pipe (15) for the auxiliary air leads tangentially on the outflow side into the jacket space of the low-temperature combustion chamber (4) and feeds the auxiliary air through arcuate vanes, to generate an opposite spin referred to the spin of the waste gas stream, and a further annular inflow duct (7) to the mixing nozzle (3), c) the mixing nozzle (3), in which the feed flows are united in a shear flow, is arranged peripherally from the low-temperature combustion chamber (4) on the upstream side.

IPC 1-7

F23G 7/06

IPC 8 full level

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CPC (source: EP)

F23G 5/32 (2013.01); **F23G 5/40** (2013.01); **F23G 7/066** (2013.01)

Cited by

EP1724525A1; EP1193443A3; EP0854323A1; FR2758611A1; CN108426242A; WO9503512A1; US7607914B2; US6948929B2

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