

Title (en)

DEVICE OF THE BOILER-TYPE USING A SOLID-LIQUID SUSPENSION OF THE COAL-WATER-TYPE AS FUEL

Publication

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Application

EP 83401755 A 19830906

Priority

FR 8215359 A 19820910

Abstract (en)

[origin: EP0107527A1] 1. A boiler type device for the industrial production of thermal fluid such as water vapor, including : - a first combustion zone (5) of stretched cylindrical shape, of length L and diameter D, inclined with respect to the horizontal plane, activated with a rotating motion and equipped with a combustion organ (4). - a second combustion zone (12), distinct from the preceding one, called a solidification zone, of depth P, with I and height H, in which : a) a fraction of the calories contained in the combustion products is transferred by radiation to a receiving panel equipped with cold tubes (13) in which the fluid to be reheated is circulating, and in which b) non combustible particles, melted or dough-like and in suspension in the gaseous current are solidified, with the so-called solidification zone having in its lower part hopper for recovering slag, a third zone (17) for thermal exchange by convection via a tubuar network (18) equipped in its lower part with dust hoppers (21) and connected to the flushing systems (24) for gas and unwatering (25), characterized by the fact that the combustion organ (4) is a multi-fluid burner adapted to burn solid fuel suspended in a liquid, and that in the first combustion zone (5) the fuel is pulverized axially by an auxiliary fluid adapted to the fuel being used, and that the combustion zones shown (5, 12) and the solidification zone are associated via the following geometrical relationships expressed as a function of the parameter D : $3.25 D \leq L$ $3.25 D \leq 2.25 D \leq I$ $4. D \leq H$

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