

Title (en)

COMBUSTOR MEANS OF A VAPOUR GENERATING AND VAPOUR SUPERHEATING UNIT AND A METHOD OF OPERATING SAME

Title (de)

BRENNERVORRICHTUNG FÜR EINEM DAMPFERZEUGER UND DAMPFÜBERHITZERANLAGE UND METHODE ZUM BETRIEB DESSELBEN

Title (fr)

MOYENS DE CHAMBRE DE COMBUSTION D'UNE UNITE DE GENERATION ET DE SURCHAUFFE DE VAPEUR ET METHODE D'EXPLOITATION

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Application

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Abstract (en)

[origin: WO9801701A1] An arched furnace chamber (2) of a vapour generating and superheating unit is provided with ports (18, 18A) in the arch portions (14) and tertiary combustion air ports (20) in base portions of the walls (12). Pulverised fuel burners (22), directed to discharge downwardly toward a hopper bottom (24) are disposed, as groups, in ports (18) adjacent the side walls (4), with, in each port, the burners (22) flanked by secondary combustion air discharge nozzles (26). Secondary combustion air is ducted also to the centrally disposed ports (18A) for discharge through nozzles (26A). In operation, the burners (22) discharge pulverised fuel entrained in a sub-stoichiometric carrier air flow directed downwardly toward the hopper bottom (24) and biased toward the side walls (4) by the secondary combustion air flows from the centrally disposed nozzles (26A). The urging of the burning flow of pulverised fuel toward the water tube side walls (4) by the discharge through the nozzles (26A) of secondary combustion air at a temperature less than that of the combustion gases tends to limit the temperature attained in the burning flow of pulverised fuel, thereby limiting the production of oxides of nitrogen (NOx). Other configurations of the furnace chamber are envisaged.

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