

Title (en)
Combustion apparatus with improved combustion efficiency

Title (de)
Verbrennungsvorrichtung mit verbesserter Verbrennungseffizienz

Title (fr)
Appareil de combustion avec efficacité améliorée

Publication
EP 2549181 B1 20160921 (EN)

Application
EP 12174643 A 20120702

Priority
KR 20110006594 U 20110720

Abstract (en)
[origin: EP2549181A2] Provided is a combustion apparatus with improved thermal efficiency having a combustion vessel that receives an air supply from the outside to thus burn a fuel that is supplied from a fuel supply unit, which including: a cylindrical combustion chamber (11) that is surrounded by an inner wall (12) of the combustion vessel (10) to thus burn a fuel; a cooling chamber (13) that comprises an intermediate wall (14) that is formed to be spaced apart from an outer side of the inner wall (12) of the combustion vessel (10), in which a cooling water inlet and a cooling water outlet through which cooling water flows in and out, respectively, are formed at lower and upper sides of the intermediate wall (14), and that is formed at an outer circumference of the combustion chamber (11), to thereby cool the inner wall (12) of the combustion chamber (11) by the cooling water that flows into a space formed between the inner and intermediate walls (12, 14) of the cooling chamber (13) through the cooling water inlet; a lateral combustion air supply chamber (15) that comprises an outer wall (16) that is formed to be spaced apart from an outer side of the intermediate wall (14) of the cooling chamber (13), in which a combustion air supply inlet (16a) through which air necessary for combustion is supplied from the outside is formed at an upper side of the outer wall (16), and that is formed at an outer circumference of the cooling chamber (13), to thereby make the air supplied through the combustion air supply inlet (16a) that is formed in a tangential direction with respect to the cylindrical outer wall (16) turn and fall in a space formed between the intermediate wall (14) of the cooling chamber (13) and the outer wall (16) of the lateral combustion air supply chamber (15), so that the combustion air is supplied to the combustion chamber (11) via an opened lower portion of the lateral combustion air supply chamber (15) (Fig. 2).

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