

Title (en)
BOILER STRUCTURE FOR VESSEL

Title (de)
KESSELSTRUKTUR FÜR KAMMER

Title (fr)
STRUCTURE DE CHAUDIÈRE POUR NAVIRE

Publication
EP 2224166 A4 20140514 (EN)

Application
EP 08778085 A 20080711

Priority

- JP 2008062570 W 20080711
- JP 2007324692 A 20071217

Abstract (en)
[origin: EP2224166A1] Provided is a marine boiler structure that is capable of remedying non-uniformity in corrosion progression by making the temperature distribution of combustion gas that passes through a superheater uniform, and that is also capable of reducing the level of NOx contained in the combustion gas. In a marine boiler structure configured such that combustion gas generated by combustion in a burner 3 flows from a furnace 2 through a superheater 5 and an evaporator tube bundle 6, a bottom air port 20 that supplies part of the combustion air as bottom air from a furnace bottom portion 2a of the furnace 2 is provided, the bottom air port 20 is positioned closer to the superheater 5 relative to a burner center line CL, and an ejecting direction of the bottom air is set within a range inclining in the burner direction from the vertically upward direction.

IPC 8 full level
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F22B 21/081 (2013.01 - EP US); **F22B 31/00** (2013.01 - EP US); **F22B 37/40** (2013.01 - KR); **F22G 5/04** (2013.01 - KR);
F23C 5/08 (2013.01 - EP US); **F23C 5/24** (2013.01 - EP US); **F23C 7/04** (2013.01 - EP US); **F23L 9/04** (2013.01 - EP US);
F23L 99/00 (2013.01 - KR)

Citation (search report)

- [X] JP 2002195504 A 20020710 - MITSUBISHI HEAVY IND LTD
- [X] US 3171390 A 19650302 - BLODGETT NORMAN S
- [X] US 3157163 A 19641117 - KUHNER MAX H
- See references of WO 2009078191A1

Cited by
EP3591291A4

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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

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