

Title (en)
WASTE HEAT BOILER

Title (de)
ABWÄRMEKESSEL

Title (fr)
CHAUDIÈRE À RÉCUPÉRATION DE CHALEUR

Publication
EP 3258168 A4 20190220 (EN)

Application
EP 16748738 A 20160206

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Abstract (en)
[origin: EP3258168A2] The present invention provides with a waste heat boiler and a hammering device, a heating tube mounting structure thereof. The waste heat boiler of the present invention comprises a boiler (1), heating tubes (4) provided in the boiler (1) and a hammering device; the boiler (1) is provided with an exhaust gas inlet (2) and an exhaust gas outlet (3); the heating tubes (4) are in a horizontal grid tube arrangement; a surface of the heating tubes (4) is provided with fins (23), and the heating tubes (4) are connected to support assemblies (5) in an unfixed way.

IPC 8 full level
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Citation (search report)
• [X] JP 2002295989 A 20021009 - BABCOCK HITACHI KK
• [XI] JP S5941797 A 19840308 - TOKYO SHIBAURA ELECTRIC CO
• [X] WO 2015001666 A1 20150108 - KAWASAKI HEAVY IND LTD [JP]
• [XI] US 4442800 A 19840417 - SEIFERT THOMAS P [US], et al
• [X] US 3885530 A 19750527 - KIVLEN JOHN A, et al
• [A] DE 1138794 B 19621031 - WALTHER & CIE AG
• See references of WO 2016127937A2

Cited by
CN116067215A

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