

Title (en)

Heat treatment method for boiler membrane panel and boiler processed by the same heat treatment

Title (de)

Wärmebehandlungsverfahren für Kesselmembranplatte und Kessel, der mit dieser Wärmebehandlung hergestellt ist

Title (fr)

Procédé de traitement thermique pour panneau de membrane de chaudière et chaudière traitée par le même traitement thermique

Publication

EP 2746655 A1 20140625 (EN)

Application

EP 13179228 A 20130805

Priority

JP 2012177974 A 20120810

Abstract (en)

A heat treatment method for boiler membrane panel in which pipes of boiler membrane panels are welded, a plurality of the boiler membrane panels (20) forming a water wall of a boiler furnace, the boiler membrane panel (20) including a plurality of the pipes (1) as heat-transfer pipes forming the water wall of the boiler furnace and a plurality of membrane bars (7) joining the pipes (1), comprising the steps of: positioning an ignition body (3, 3b, 3c, 3d, 3e) on the outer circumferential side of the pipe (1) including a welding portion (2) of the pipe of the boiler membrane panel (20) when an operation of the boiler is stopped; flowing a high-temperature heat medium (5) inside of the pipe (1) of the boiler membrane panel (20); raising the temperature of the pipe (1) to the ignition point of the ignition body (3, 3b, 3c, 3d, 3e) by flow of the high-temperature heat medium (5) and starting combustion of the ignition body (3, 3b, 3c, 3d, 3e) positioned on the outer circumferential side of the pipe (1); and heating the welding portion (2) of the pipe (1) and a heat-affecting area of the welding portion (2) through combustion of the ignition body (3, 3b, 3c, 3d, 3e), and raising the temperature of the pipe (1) by flow of the high-temperature heat medium (5) inside of the pipe (1), whereby a welding residual stress applied to the welding portion (2) of the pipe (1) and the heat-affecting area of the welding portion (2) is reduced.

IPC 8 full level

F22B 37/10 (2006.01)

CPC (source: EP)

F22B 37/107 (2013.01); **F22B 37/108** (2013.01)

Citation (applicant)

JP 2007064608 A 20070315 - BABCOCK HITACHI KK

Citation (search report)

- [XA] DE 102011054718 A1 20120503 - HITACHI POWER EUROPE GMBH [DE]
- [XA] FR 2688113 A1 19930903 - FRAMATOME SA [FR]
- [XA] JP S61114097 A 19860531 - SUMITOMO METAL IND
- [XA] JP 2002174401 A 20020621 - BABCOCK HITACHI KK

Designated contracting state (EPC)

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