

# REPORT ON BOILERS.

No. 5503.

3 JAN 1927

Received at London Office

Date of writing Report 19.11.1926 When handed in at Local Office 30.11.1926 Port of KOBE

No. in Reg. Book. Survey held at HARIMA Date, First Survey 7.10.26 Last Survey 19.11.1926  
on the Thin Screw motorship "YAHIKO MARU". (Number of Visits 5) Tons Gross 5742.4 Net 3394.9

built at HARIMA By whom built KOBE STEEL WORKS HARIMA DOCKYARD Yard No. III When built 1926  
Engines made at KOBE By whom made KOBE STEEL WORKS. Engine No. 63164 When made 1926  
Boilers made at By whom made Boiler No. When made  
owners ITAYA MIYAKICHI Port belonging to KOBE

SEE ALSO GLASGOW REPORT NO 45401

## VERTICAL DONKEY BOILER.

Made at ANNAN, SCOTLAND By whom made COCHRAN ANNAN LTD Boiler No. 9478 When made 1926 Where fixed ENGINE ROOM.

Manufacturers of Steel

Total Heating Surface of Boiler Is forced draught fitted NO Coal or Oil fired OIL.

No. and Description of Boilers 1 COCHRAN DONKEY BOILER (VERTICAL) Working pressure 125 lb.

Tested by hydraulic pressure to Date of test No. of Certificate 17045

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 SPRING LOADED.

Area of each set of valves per boiler per rule 2.36" as fitted 6.28" Pressure to which they are adjusted 127 lb. Are they fitted with easing gear YES.

State whether steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers

woodwork Is oil fuel carried in the double bottom under boiler NO Smallest distance between base of boiler and tank top plating

3'-3" Is the base of the boiler insulated NO Largest internal dia. of boiler Height

Shell plates: Material Tensile strength Thickness

Are the shell plates welded or flanged Description of riveting: circ. seams end long. seams inter.

Dia. of rivet holes in circ. seams Pitch of rivets Percentage of strength of circ. seams plate rivets of Longitudinal joint rivets combined.

Working pressure of shell by rules Thickness of butt straps outer inner.

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Material

Tensile strength Thickness Radius Working pressure by rules

Description of Furnace: Plain, spherical, or dished crown NO Material Tensile strength

Thickness External diameter top bottom Length as per rule Working pressure by rules

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown Working pressure by rule

Thickness of Ogee Ring Diameter as per rule D a Working pressure by rule

Combustion Chamber: Material Tensile strength Thickness of top plate

Diameter if dished Working pressure by rule Thickness of back plate Diameter if circular

Length as per rule Pitch of stays Are stays fitted with nuts or riveted over

Diameter of stays over thread Working pressure of back plate by rules

Shell Plates: Material front back Tensile strength Thickness Mean pitch of stay tubes in nests

Comprising shell, Dia. as per rule front back Pitch in outer vertical rows Dia. of tube holes FRONT stay plain BACK stay plain

Each alternate tube in outer vertical rows a stay tube Working pressure by rules front back

Boilers to combustion chamber tops: Material Tensile strength

Length and thickness of girder at centre Length as per rule

Distance apart No. and pitch of stays in each Working pressure by rule

*Glasgow Report No 45401*



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**Crown stays:** Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at body of stay, .....  
 or  
 over threads..... }  
 No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

**Screw stays:** Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at turned off part, .....  
 or  
 over threads..... } No. of threads per inch \_\_\_\_\_  
 Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_

**Tubes:** Material \_\_\_\_\_ External diameter { plain.....  
 stay..... } Thickness { .....  
 No. of threads per inch \_\_\_\_\_ Pitch of tubes \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

**Manhole Compensation:** Size of opening in shell plate \_\_\_\_\_ Section of compensating ring \_\_\_\_\_ No. of rivets and diameters \_\_\_\_\_  
 of rivet holes \_\_\_\_\_ Outer row rivet pitch at ends \_\_\_\_\_ Depth of flange if manhole flanged \_\_\_\_\_

**Uptake:** External diameter \_\_\_\_\_ Thickness of uptake plate \_\_\_\_\_

**Cross Tubes:** No. \_\_\_\_\_ External diameters { .....  
 Thickness of plates \_\_\_\_\_

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with \_\_\_\_\_

The foregoing is a correct description  
*J. Mikami* THE KUBE STEEL WORKS  
 Manufacturer

Dates of Survey { During progress of work in shops - - 1926  
 while building { During erection on board vessel - - Oct. 7. 26 - Nov 10. 16. 19.

Is the approved plan of boiler forwarded herewith (If not state date of approval.) No. \_\_\_\_\_  
 Total No. of visits 5.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This donkey boiler together with its oil fuel burning installation has been efficiently installed on board in accordance with the requirements of the vessel & in my opinion suitable for the notation "Donkey Boiler 125 lbs" & the safety valves have been adjusted accordingly.

Survey Fee (installing steel only) ... \$ 60.00  
 Travelling Expenses (if any) £ See mch. rpt. }  
 When applied for, ..... 19.....  
 When received, ..... 19.....

*J. McEneaney*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned \_\_\_\_\_  
 FRI, 7 JAN 1927  
*See S.E. rpt attached*

