

Copy

YOKOHAMA NO. 4445

Rpt. 5b.

REPORT ON BOILERS.

No. 16297

-8 JAN 1930

Date of writing Report 12-4 1929 When handed in at Local Office 12-4 1929 Port of Grimsby 27-9-29
No. in Reg. Book 12-4 Survey held at Lincoln Date, First Survey 5-2-29 Last Survey 4-4 1929
on the Steel Screw M.V. "SYDNEY MARU" (Number of Visits 9 Gross 5436 Tons Net 3237)
Built at Yokohama By whom built Yokohama Dock Co. Yard No. 173 When built 1929
Engines made at Copenhagen By whom made Burmeister & Wain Engine No. 1590 When made 1929
Boilers made at Lincoln By whom made Babcock & Wilcox Ltd Boiler No. 73/4594 When made
Owners Osaka Shosen Kaisha, Port belonging to Osaka

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Ltd Boiler No. 73/4594 When made 1929 Where fixed Yokohama
Manufacturers of Steel Parkgate S. S. Co. Ltd
Total Heating Surface of Boiler 350 π Is forced draught fitted ☒ Coal or Oil fired Oil & Exhaust gas
No. and Description of Boilers One Clarkson Waste Heat Working pressure 100 lbs.
Tested by hydraulic pressure to 200 lbs. Date of test 22nd March 1929 No. of Certificate 262
Area of Firegrate in each Boiler no No. and Description of safety valves to each boiler Two spring loaded
Area of each set of valves per boiler $\left\{ \begin{array}{l} \text{per rule } 4.56 \\ \text{as fitted } 6.28 \end{array} \right.$ Pressure to which they are adjusted 100 lbs. Are they fitted with easing gear ☒
State whether steam from main boilers can enter the donkey boiler ☒ Smallest distance between boiler or uptake and bunkers
or woodwork ☒ Is oil fuel carried in the double bottom under boiler ☒ Smallest distance between base of boiler and tank top plating
☒ Is the base of the boiler insulated no Largest internal dia. of boiler 5'-0" Height 8'-3 7/8"
Shell plates: Material S. M. Steel Tensile strength 28/32 T. Thickness 7/16"
Are the shell plates welded or flanged D.R. Lap Description of riveting: circ. seams $\left\{ \begin{array}{l} \text{end } S.R. \& D.R. \text{ Lap} \\ \text{inter. } S.R. \text{ Lap} \end{array} \right.$ long. seams D.R. Lap.
Dia. of rivet holes in $\left\{ \begin{array}{l} \text{circ. seams } 13/16 \\ \text{long. seams } 13/16 \end{array} \right.$ Pitch of rivets $\left\{ \begin{array}{l} 1 7/8 - 2 5/8 \\ 2 5/8 - 2 3/4 \end{array} \right.$ Percentage of strength of circ. seams $\left\{ \begin{array}{l} \text{plate } 57+69 \\ \text{rivets } 52+74 \end{array} \right.$ of Longitudinal joint $\left\{ \begin{array}{l} \text{plate } 69 \\ \text{rivets } 74 \\ \text{combined } 75 \end{array} \right.$
Working pressure of shell by rules 133 lbs. Thickness of butt straps $\left\{ \begin{array}{l} \text{outer } - \\ \text{inner } - \end{array} \right.$
Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material S. M. Steel
Tensile strength 26/30 T. Thickness 5/8" Radius Working pressure by rules 230 lb.
Description of Furnace: Plain, spherical, or dished crown dished Material S. M. Steel Tensile strength 26/30 T
Thickness 13/16" External diameter $\left\{ \begin{array}{l} \text{top } 4 - 1 5/8 \\ \text{bottom } 4 - 1 3/8 \end{array} \right.$ Length as per rule 5'-2 1/2" Working pressure by rules 112 lbs.
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 3'-8" Working pressure by rule 117 lbs.
Thickness of Ogee Ring 7/8" Diameter as per rule $\left\{ \begin{array}{l} \text{D } 4 - 1 1/8 \\ \text{d } 4 - 1 5/8 \end{array} \right.$ Working pressure by rule 182 lbs.
Combustion Chamber: Material Tensile strength Thickness of top plate
Radius 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
Tube Plates: Material $\left\{ \begin{array}{l} \text{front } - \\ \text{back } - \end{array} \right.$ Tensile strength $\left\{ \begin{array}{l} - \\ - \end{array} \right.$ Thickness $\left\{ \begin{array}{l} - \\ - \end{array} \right.$ Mean pitch of stay tubes in nests
If comprising shell, Dia. as per rule $\left\{ \begin{array}{l} \text{front } - \\ \text{back } - \end{array} \right.$ Pitch in outer vertical rows $\left\{ \begin{array}{l} - \\ - \end{array} \right.$ Dia. of tube holes FRONT $\left\{ \begin{array}{l} \text{stay } - \\ \text{plain } - \end{array} \right.$ BACK $\left\{ \begin{array}{l} \text{stay } - \\ \text{plain } - \end{array} \right.$
Is each alternate tube in outer vertical rows a stay tube Working pressure by rules $\left\{ \begin{array}{l} \text{front } - \\ \text{back } - \end{array} \right.$
Girders to combustion chamber tops: Material Tensile strength
Depth and thickness of girder at centre Length as per rule
Distance apart No. and pitch of stays in each Working pressure by rule

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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 S. M. Steel External diameter ^{plain} 34" _{stay} Thickness 6 B.W.G.
 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 diameter _____
 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 22 inclusive for boilers been complied with _____

The foregoing is a correct description,
Barcock & Wilsons Ltd
 (Lincoln Branch) Manufacturer.
 (Signed) — Lewis

Annual Survey Request

Dates of Survey ^{During progress of} _{work in shops - -} 1929 Feb. 5. 13. 22. 26 March 8. 15. 22. April 4. Is the approved plan of boiler forwarded herewith Yes.
 while building ^{During erection on} _{board vessel - -} 27 Sept, Nov 15th, Nov 20th, 1929. (If not state date of approval.)
 Total No. of visits 9 + 3 = 12.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey and in accordance with the Rules and approved plan.
The materials and workmanship are good.

This boiler has now been despatched to Yokohama.

Yokohama.
This boiler has been now been fitted onboard and examined under steam.
Safety valves adjusted to 100 lbs/sq and accumulation test carried out. all found in order.
J. Micholas.

Survey Fee £ : : } When applied for, 19
 Travelling Expenses (if any) £ : : } When received, 19

Signed W. G. MacKenzie J. Micholas
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 17 JAN 1930
 Assigned See YMA 36 4445