

REPORT ON BOILERS.

No. 17718

12 DEC 1931

Received at London Office

Date of writing Report 11-12 1931 When handed in at Local Office 11-12-1931 Port of Grimsby

No. in Survey held at Reg. Book Lincoln Date, First Survey 18-9-31 Last Survey 4-12-1931

(Number of Visits 11) Gross Tons Net

Built at Hagerston By whom built Mitsubishi Zosen Kaisha Ltd. Yard No. 502 When built

Engines made at By whom made Engine No. When made

Boilers made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/4623 When made

Owners Port belonging to

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/4623 When made 1931 Where fixed

Manufacturers of Steel Colville & Co. Ltd. Parkgate

Total Heating Surface of Boiler 500 sq. ft. Is forced draught fitted Coal or Oil fired & Exhaust Gas

No. and Description of Boilers One, Clarkson, thin tube water heat Working pressure 100 lb.

Tested by hydraulic pressure to 200 lb. Date of test 4th December 1931 No. of Certificate 321

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler Two, spring loaded marine type each 2 1/4" dia.

Area of each set of valves per boiler { per rule 6.557" as fitted 7.960" Pressure to which they are adjusted not adjusted 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

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 Largest internal dia. of boiler 7'-0" Height 18'-9" 00.

Shell plates: Material S. L. steel Tensile strength 28/32 T. Thickness 7/16"

Are the shell plates welded or flanged riveted Description of riveting: circ. seams { end S. L. Lap inter. S. L. " long. seams D. K. Lap D. B. 254

Dia. of rivet holes in { circ. seams 13/16" Pitch of rivets 1 3/16" Percentage of strength of circ. seams { plate 55% rivets 53.5% of Longitudinal joint { plate 71.5 rivets 126 combined

Working pressure of shell by rules 104 lb. Thickness of butt straps { outer 13/32 inner 13/32

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished Material S. L. steel

Tensile strength 26/30 T. Thickness 13/16" Radius 6'-3" Working pressure by rules 109 lb.

Description of Furnace: Plain, spherical, or dished crown dished Material S. L. steel Tensile strength 26/30 T.

Thickness 15/16" External diameter { top 4'-4 1/8" Length as per rule 8'-4" Working pressure by rules 106 lb.

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'-6" Working pressure by rule 140 lb.

Thickness of Gage Ring 7/8" Diameter as per rule { D d Working pressure by rule 102 lb.

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 { front back Tensile strength Thickness Mean pitch of stay tubes in nests

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

Is each alternate tube in outer vertical rows a stay tube Working pressure by rules { front back

Girders to combustion chamber tops: Material Tensile strength

Depth and thickness of girder at centre Length as per rule

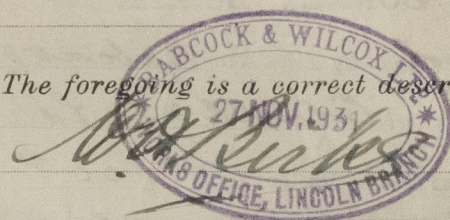
Distance apart No. and pitch of stays in each Working pressure by rule

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. D. mild steel* ☒ External diameter ☒ plain *3 1/4 to 2 1/4* ☒ Thickness *6 B.W.S.* ☒
No. of threads per inch ☒ Pitch of tubes *7" staggered* ☒ Working pressure by rules ☒
Manhole Compensation: Size of opening in shell plate *18"* ☒ Section of compensating ring *4 1/2" x 1"* ☒ No. of rivets and diameter
of rivet holes *44 - 15/16"* Outer row rivet pitch at ends *3.16"* Depth of flange if manhole flanged *3 1/4"*
Uptake: External diameter *2'-7 1/4"* ☒ Thickness of uptake plate *5/8"* ☒
Cross Tubes: No. External diameters Thickness of plates

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

Annual Survey Request

The foregoing is a correct description,



Manufacturer.

Dates of Survey ☒ During progress of work in shops - *1931. Sept 18, 22, 29, 15, 23, 28, Nov 13, 17, 25, 27, Dec 4.*
☒ During erection on board vessel -

Is the approved plan of boiler forwarded herewith *no 4/9/31*
(If not state date of approval.)

Total No. of visits *11*

Is this Boiler a duplicate of a previous case *yes* If so, state Vessel's name and Report No. *hitsuishi, Zora Kaisha Co. 9 mo. Rpt. No. 17917 Yard No 501*

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 as per Secretary's letter dated 4th September, 1931. Upon completion it was tested under hydraulic pressure to 200 lbs per sq inch and found satisfactory. The materials and workmanship are good.

This boiler has now been shipped to Nagasaki.

Survey Fee ... £ 4 : 4 : : When applied for, *8-12-1931*
Travelling Expenses (if any) £ 1 : 19 : : When received, *31. 3. 1932*

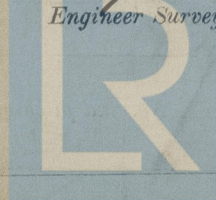
WED. 19 APR 1933

Committee's Minute

Assigned

*Not for passing Committee
See Nag. 1878*

W. H. McKinlay
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation