

REPORT ON BOILERS.

No. 84349

Date of writing Report 17-6-1929 When handed in at Local Office 20-6-1929 Port of NEWCASTLE-ON-TYNE
 No. in Reg. Book. Survey held at Hebburn Date, First Survey 18 March Last Survey 14-6-1929
 39511. on the S/s "Bombo" (Number of Visits 10. Gross 606.8 Tons Net 228.2)
 Master Built at Leith. By whom built Henry Robb & Co. Yard No. 154 When built 1930.
 Engines made at Newbury By whom made Plenty & Son Ltd Engine No. 2635 When made 1930.
 Boilers made at Hebburn By whom made Palmers Co. Ltd Boiler No. 1127 When made 1929
 Nominal Horse Power 100 Owners New South Wales Government Port belonging to Sydney.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR—DONKEY.

Manufacturers of Steel The Steel Company of Scotland Ltd. (Letter for Record S)
 Total Heating Surface of Boilers 2176 Is forced draught fitted No Coal or Oil fired COAL
 No. and Description of Boilers 1 S.E. MULTITUBULAR Working Pressure 180 LBS.
 Tested by hydraulic pressure to 320 LBS. Date of test 11-6-29 No. of Certificate 357 Can each boiler be worked separately
 Area of Firegrate in each Boiler 63^{sq} No. and Description of safety valves to each boiler Double - Spring Loaded
 Area of each set of valves per boiler (per Rule 13.92 sq" as fitted 14.12 sq") Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear yes
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler
 Smallest distance between boilers or uptakes and bunkers or woodwork 1'-9" Is oil fuel carried in the double bottom under boilers Open floor
 Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated No.
 Largest internal dia. of boilers 14'-9 1/2" Length 11'-0" Shell plates: Material STEEL Tensile strength 28-32 TONS
 Thickness 1 1/4" Are the shell plates welded or flanged No Description of riveting: circ. seams D.R.L.
 long. seams TRDBS Diameter of rivet holes in (circ. seams 1 5/16" long. seams 1 5/16" Pitch of rivets 4" 9/8"
 Percentage of strength of circ. end seams (plate 67.2% rivets 44.4% Percentage of strength of circ. intermediate seam (plate 85.6% rivets 91.3% combined 89.5% Working pressure of shell by Rules 186 LBS.
 Percentage of strength of longitudinal joint (plate 85.6% rivets 91.3% combined 89.5%
 Thickness of butt straps (outer 1 1/8" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 MORISON SECTION 3. a.f.
 Material STEEL Tensile strength 26-30 TONS Smallest outside diameter 3'-6 5/8"
 Length of plain part (top 10 1/2" bottom 10 1/2" Thickness of plates (crown 9/16" bottom 9/16" Description of longitudinal joint WELD
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 191 LBS.
 End plates in steam space: Material STEEL Tensile strength 26-30 TONS Thickness 1 3/16" Pitch of stays 20" x 20"
 How are stays secured DOUBLE NUTS & WASHERS Working pressure by Rules 184 LBS.
 Tube plates: Material (front STEEL (back Tensile strength 26-30 TONS Thickness 1 1/4" 3/4"
 Mean pitch of stay tubes in nests 9 1/2" x 9 3/8" Pitch across wide water spaces 14" Working pressure (front 420 LBS (back 225
 Girders to combustion chamber tops: Material STEEL Tensile strength 28-32 TONS Depth and thickness of girder
 at centre 8 1/2" x 1 5/8" Length as per Rule 2'-10 1/2" Distance apart 8 1/2" No. and pitch of stays
 in each 2 @ 10" Working pressure by Rules 215 LBS. Combustion chamber plates: Material STEEL
 Tensile strength 26-30 TONS Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 1"
 Pitch of stays to ditto: Sides 8 1/2" x 10" Back 9 1/4" x 9 1/4" Top 8 1/2" x 10" Are stays fitted with nuts or riveted over NUTS
 Working pressure by Rules 192 LBS. Front plate at bottom: Material STEEL Tensile strength 26-30 TONS
 Thickness 1 1/4" Lower back plate: Material STEEL Tensile strength 26-30 TONS Thickness 7/8"
 Pitch of stays at wide water space d = 16" Are stays fitted with nuts or riveted over NUTS
 Working Pressure 208 LBS. Main stays: Material STEEL Tensile strength 28-32 TONS
 Diameter (At body of stay, or Over threads 3 1/4" No. of threads per inch 6 Area supported by each stay 400
 Working pressure by Rules 200 LBS. Screw stays: Material STEEL Tensile strength 26-30 TONS
 Diameter (At turned off part, or Over threads 1 3/4" No. of threads per inch 9 Area supported by each stay 85

Working pressure by Rules **212 LBS** Are the stays drilled at the outer ends **No** Margin stays: Diameter { At turned off part, **1 7/8** or Over threads }
No. of threads per inch **9** Area supported by each stay **108.49** Working pressure by Rules **194 LBS**
Tubes: Material **STEEL** External diameter { Plain **3 1/2** Stay **3 1/2** Thickness { **8 W.G.** **4 5/8** } No. of threads per inch **9**
Pitch of tubes **4 1/8 x 4 3/4** Working pressure by Rules **215 LBS** Manhole compensation: Size of opening in shell plate **20" x 16"** Section of compensating ring **3 0" x 2.8" x 1 5/8** No. of rivets and diameter of rivet holes **32 @ 1 5/8**
Outer row rivet pitch at ends **9 1/8** Depth of flange if manhole flanged **3 1/2** Steam Dome: Material
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets }
Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays
How connected to shell Inner radius of crown Working pressure by Rules
Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of { Tubes Steel castings }
Number of elements Material of tubes Internal diameter and thickness of tubes
Material of headers Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately
Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules
Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

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

Palmers Shipbuilding & Iron Co., Ltd.
The foregoing is a correct description,

A. Cameron Manufacturer.
Manager, Hobbins Boiler Shop & Foundry

Dates of Survey { During progress of work in shops - - - **1929** **Mar. 18. 25. Apr. 8. 12. 22. 30. May 24.** Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) **Yes.**
while building { During erection on board vessel - - - **June 3. 11. 14.** Total No. of visits **10.**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **This boiler has been built under Special Survey, the materials and workmanship are good.**

This boiler has been efficiently fitted on board, its safety valves have been adjusted under steam & found satisfactory.

John Houston
Leith. 24/7/30.

Survey Fee ... £ **14 : 10 : 0** When applied for, **21 JUN 1929**
Travelling Expenses (if any) £ : : When received, **29th July 1929**

Thomas Napier

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI, 28 FEB. 1930

Assigned

See Lth JE 17761



© 2021

Lloyd's Register Foundation