

Rpt. 5a. 803
5.4
Date of writing Report

REPORT ON BOILERS.

Sld. No. 30063
Hpl No. 16760

Received at London Office

8 MAY 1929

When handed in at Local Office 7.5.1929 Port of **WEST HARTLEPOOL** Date, First Survey 17th Jan/29 Last Survey 23rd June 1929
 No. in Survey held at **Hartlepool** (Number of Visits 21) Gross Tons Net
 on the **S.S. "THE MONI"**
 Built at **Newcastle** By whom built **Northumberland S.P. Co. Ltd.** Yard No. **411** When built **1929**
 Engines made at **Dunderland** By whom made **Richardsons Westgarth & Co. Ltd.** Engine No. **2200** When made **1929**
 Boilers made at **Hartlepool** By whom made **ditto** Boiler No. **2200** When made **1929**
 Nominal Horse Power **426** Owners **Kawas & Co. Ltd.** Port belonging to **Syria.**

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel **Steel Company of Scotland Ltd.** (Letter for Record **S**)
 Total Heating Surface of Boilers **7030 sq. ft.** Is forced draught fitted **no** Coal or Oil fired **coal**
 No. and Description of Boilers **Three single ended** Working Pressure **200 lbs**
 Tested by hydraulic pressure to **350 lbs** Date of test **22.3.29** No. of Certificate **3756** Can each boiler be worked separately
 Area of Firegrate in each Boiler **55.62 sq. ft.** No. and Description of safety valves to each boiler **2 Cockburns improved high lift**
 Area of each set of valves per boiler (per Rule **682** as fitted **7.98**) Pressure to which they are adjusted **205 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 **no**
 Smallest distance between shell of boiler and tank top plating **2-3"** Is the bottom of the boiler insulated **yes**
 Largest internal dia. of boilers **15'-6"** Length **11'-0"** Shell plates: Material **Steel** Tensile strength **28.5/32.5**
 Thickness **1 3/8"** Are the shell plates welded or flanged **no** Description of riveting: circ. seams **D.R. Lap.**
 Long. seams **J.R. D.B.S.** Diameter of rivet holes in (circ. seams **1 1/4"** long. seams **1 3/8"** Pitch of rivets (circ. seams **3 3/8"** long. seams **9 1/2"**)
 Percentage of strength of circ. end seams (plate **63** rivets **42.6**) Percentage of strength of circ. intermediate seam (plate **85.52** rivets **86**)
 Percentage of strength of longitudinal joint (plate **86** rivets **88**) Working pressure of shell by Rules **200 lbs.**
 Thickness of butt straps (outer **1 1/16"** inner **1 3/16"**) No. and Description of Furnaces in each Boiler **3 Deightons. 3 cf**
 Material **Steel** Tensile strength **26/30** Smallest outside diameter **45 13/16"**
 Length of plain part (top **2 1/2"** bottom **3 1/2"**) Thickness of plates (crown **2 1/2"** bottom **3 1/2"**) Description of longitudinal joint **welded**
 Dimensions of stiffening rings on furnace or c.c. bottom **✓** Working pressure of furnace by Rules **209 lbs**
 End plates in steam space: Material **Steel** Tensile strength **26/30** Thickness **1 7/32"** Pitch of stays **17 1/4" x 19 7/8"**
 How are stays secured **Double nuts** Working pressure by Rules **200 lbs**
 End plates: Material (front **Steel** back **Steel**) Tensile strength **26/30** Thickness (front **2 1/2"** back **2 7/32"**)
 Pitch of stay tubes in nests **11 2/32"** Pitch across wide water spaces **14 1/4" x 8 7/8"** Working pressure (front **200 lbs** back **201 lbs**)
 Orders to combustion chamber tops: Material **Steel** Tensile strength **28/32** Depth and thickness of girder
 Centre **8" x 1 3/4"** Length as per Rule **2'-7 3/8"** Distance apart **8 5/8"** No. and pitch of stays
 each **3** Working pressure by Rules **206 lbs** Combustion chamber plates: Material **Steel**
 Tensile strength **26/30** Thickness: Sides **3/4"** Back **5/8"** Top **5/8"** Bottom **3/4"**
 Pitch of stays to ditto: Sides **7 3/4" x 8 3/4"** Back **8" x 8 1/4"** Top **8 5/8" x 7 3/4"** Are stays fitted with nuts or riveted over **nuts**
 Working pressure by Rules **201 lbs** Front plate at bottom: Material **Steel** Tensile strength **26/30**
 Thickness **2 9/32"** Lower back plate: Material **Steel** Tensile strength **26/30** Thickness **1 13/16"**
 Pitch of stays at wide water space **14" x 8"** Are stays fitted with nuts or riveted over **nuts**
 Working Pressure **208 lbs** Main stays: Material **Steel** Tensile strength **28/32**
 Diameter (At body of stay **3" x 3 3/8"** or Over threads) No. of threads per inch **6** Area supported by each stay **19 1/8" x 17 1/4" + 20 3/4" x 17 1/4"**
 Working pressure by Rules **206 lbs.** Screw stays: Material **Steel** Tensile strength **26/30**
 Diameter (At turned off part **1 3/4"** or Over threads) No. of threads per inch **9** Area supported by each stay **8 5/8" x 7 3/4"**

Working pressure by Rules **271 lb** Are the stays drilled at the outer ends **no** Margin stays: Diameter ^{At turned off part,} **1 1/8"** or Over threads

No. of threads per inch **9** Area supported by each stay **11" x 8"** Working pressure by Rules **242 lbs**

Tubes: Material **Iron** External diameter ^{Plain} **3 1/4"** Thickness ^{8 W.G.} **5/16" 3/8" 1/2"** No. of threads per inch **9**

Pitch of tubes **4 7/16" x 4 9/16"** Working pressure by Rules **230 + 272 lbs** Manhole compensation: Size of opening

end shell plate **12" x 16"** Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends Depth of flange if manhole flanged **3 13/16"** Steam Dome: Material **none**

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 stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and p 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 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 casing gear Working pressure as 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 **yes.**

The foregoing is a correct description,
 For RICHARDSONS, WESTGARTH & CO. LIMITED
 George Clark, Manufacturing MANAGING DIRECTOR

Dates of Survey while building { During progress of work in shops - - - } **1929** **June 17, 23, 28, Dec. 11, 18, 25, Jan. 5, 11, 15, 22, 23, Apr. 5, 8, 12, 19, 22, 25, 30, May 2, 3.** Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) **Yes**

{ During erection on board vessel - - - }

Total No. of visits **21**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been built under Special Purvey
 The materials and workmanship are good.
 They satisfactorily withstood the hydraulic test on completion. The boiler mountings have been fitted and tested to 400 lb per square inch.
 The boilers have been despatched to Sunderland for fitting on board.
 The boilers have been satisfactorily fitted in the vessel & the safety valves adjusted under steam. For notation see machinery report.

Survey Fee ... £ : When applied for, 192
 Travelling Expenses (if any) £ : When received, 192

R.D. Shilston
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **TUE. 9 JUL 1929**

Assigned **see minute on Sld Rpt 30063**

