

Rpt. 5a. 803

# REPORT ON BOILERS.

Sld. No. 30063  
Hpl No. 16760

Received at London Office

8 MAY 1929

Date of writing Report

1929 When handed in at Local Office

7.5.

1929

Port of

WEST HARTLEPOOL

No. in Survey held at

Hartlepool

Date, First Survey

17<sup>th</sup> Jan/29

Last Survey

23<sup>rd</sup> June 1929  
3<sup>rd</sup> May 1929

on the

S.S. "THE MONI"

(Number of Visits 21)

Gross Tons  
Net

Master

Built at Newcastle

By whom built Northumberland S.B. 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

Kaiser's Shipyard Ltd.

Port belonging to

Sydney

## 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 sq. in.

as fitted 7.98 sq. in.

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

yes

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

end D.R. lap.

g. seams J.R. D.B.S.

Diameter of rivet holes in

circ. seams 1 1/4"

long. seams 1 3/8"

Pitch of rivets

3 3/8"

9 1/2"

Percentage of strength of circ. end seams

plate 63.

rivets 42.6

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.52

rivets 86

combined 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 c/f

Material Steel

Tensile strength

26/30

Smallest outside diameter

45 13/16"

Length of plain part

top

bottom

Thickness of plates

crown 2 1/32"

bottom 3/32"

Description of longitudinal joint

welded

Dimensions of stiffening rings on furnace or c.c. bottom

yes

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"

Are stays secured

Double nuts

Working pressure by Rules

200 lbs

End plates: Material

front Steel

back Steel

Tensile strength

26/30

Thickness

2 1/32"

27/32"

Pitch of stay tubes in nests

11 3/32"

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

7 3/4"

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

At body of stay, or Over threads

3" x 3 3/8"

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

At turned off part, or Over threads

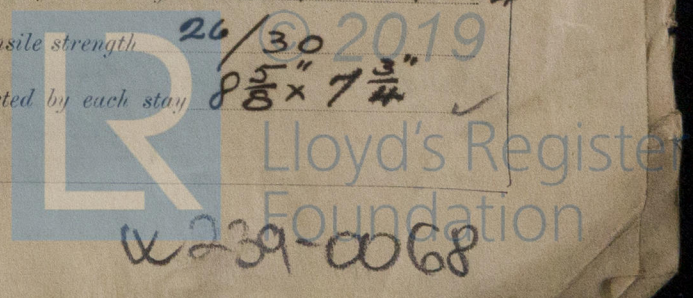
1 3/4"

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 lb  
Tubes: Material Iron External diameter { Plain 3 1/4" Stay } 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 lb 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 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 easing 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 RICHARDSON, WESTGARTH & CO. LIMITED  
Gorge Clark MANAGING DIRECTOR

Dates of Survey while building { During progress of work in shops - - - } 1929  
June 17, 23, 28, Dec. 4, 11, 18, 25, Jan. 5, 11, 15, 22 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes  
{ During erection on board vessel - - - } 23, Apr. 5, 8, 12, 19, 22, 25, 30, May 2, 3.  
Total No. of visits 21

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

These boilers have been built under Special Survey. 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 ... £ 192 When applied for, 192  
Travelling Expenses (if any) £ 192 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