

REPORT ON BOILERS.

No. 13808

10 SEP 1929

Received at London Office

Date of writing Report 5. 9. 1929 When handed in at Local Office

5. 9. 1929 Port of MIDDLESBROUGH.

No. in Reg. Book.

Survey held at MIDDLESBROUGH

Date, First Survey 7 February

Last Survey

4. 9. 1929.

653 Sup.

on the ste. "OUSEBRIDGE"

(Number of Visits)

Gross 5601

Tons Net 3533.

Master

Built at Haverton Hill in Tees whom built Furness S.B.Co. Yard No. 146. When built 1929.

Engines made at

Middlesbrough

By whom made

Richardsons, Wergarth & Co

Engine No. 2580

When made 1929.

Boilers made at

do.

By whom made

do.

Boiler No. 2580

When made 1929

Nominal Horse Power

Owners North of England S.S. Co. Ltd.

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland.

(Letter for Record S. ✓)

Total Heating Surface of Boilers

6728 ft²

Is forced draught fitted

Yes ✓

Coal or Oil fired

Coal ✓

No. and Description of Boilers

3 S.B. ✓

Working Pressure 180 lbs. ✓

Tested by hydraulic pressure to

320 lbs.

Date of test

P. 28.5.29
C. 6.6.29
S. 18.6.29

No. of Certificate

P. 6715
C. 6717
S. 6719

Can each boiler be worked separately

Yes ✓

Area of Firegrate in each Boiler

53.8 ft²

No. and Description of safety valves to each boiler

Pair Corbourns Improved High Lift

Area of each set of valves per boiler

per Rule 7.18
as fitted 7.96 ✓

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

1'-2" ✓

Is oil fuel carried in the double bottom under boilers

No. ✓

Smallest distance between shell of boiler and tank top plating

2'-6" ✓

Is the bottom of the boiler insulated

Yes ✓

Largest internal dia. of boilers

14'-0 3/4" ✓

Length

12'-2 1/4" ✓

Shell plates: Material

Steel ✓

Tensile strength

28 3/4 / 32 3/4 ✓

Thickness

1 1/8" ✓

Are the shell plates welded or flanged

No. ✓

Description of riveting: circ. seams

end D.R. ✓

long. seams T.R.D.B.S. (Srivats)

Diameter of rivet holes in

circ. seams 1 5/32 ✓

long. seams 1 5/32 ✓

Pitch of rivets

3 1/4" ✓

Percentage of strength of circ. end seams

plate 64.4 ✓

rivets 45.9 ✓

Percentage of strength of circ. intermediate seam

plate ✓

Percentage of strength of longitudinal joint

plate 85.7 ✓

rivets 86.2 ✓

combined 88.7 ✓

Working pressure of shell by Rules

180 lbs. ✓

Thickness of butt straps

outer 7/8" ✓
inner 1" ✓

No. and Description of Furnaces in each Boiler

3 Corrugated ✓

Material

Steel ✓

Tensile strength

26/30 ✓

Smallest outside diameter

3'-6 1/16" ✓

Length of plain part

top 17" ✓
bottom 32" ✓

Thickness of plates

crown 17" ✓
bottom 32" ✓

Description of longitudinal joint

Weld. ✓

Dimensions of stiffening rings on furnace at bottom

Working pressure of furnace by Rules

182 lbs. ✓

End plates in steam space: Material

Steel ✓

Tensile strength

26/30 ✓

Thickness

1 1/8" ✓

Pitch of stays 18 3/8 x 16 1/4 (mean) ✓

How are stays secured

D.N's ✓

Working pressure by Rules

195 lbs. ✓

Tube plates: Material

front Steel ✓
back Steel ✓

Tensile strength

26/30 ✓

Thickness

13/16" ✓
3/4" ✓

Mean pitch of stay tubes in nests

9 1/8" ✓

Pitch across wide water spaces

13 1/2 x 7 1/4" ✓

Working pressure

front 181 lbs. ✓
back 183 ✓

Girders to combustion chamber tops: Material

Steel ✓

Tensile strength

26/32 ✓

Depth and thickness of girder

at centre 7 1/4 x 7 1/8 (double)

Length as per Rule

2'-8" ✓

Distance apart

7 1/4" ✓

No. and pitch of stays

in each 3-7 1/4" ✓

Working pressure by Rules

180 lbs. ✓

Combustion chamber plates: Material

Steel ✓

Tensile strength

26/30 ✓

Thickness: Sides

9/16" ✓

Back

9/16" ✓

Top

9/16" ✓

Bottom

3/4" ✓

Pitch of stays to ditto: Sides

8 1/8 x 7 1/4" ✓

Back

8 1/8 x 7" ✓

Top

7 3/4 x 7 1/4" ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working pressure by Rules

182 lbs. ✓

Front plate at bottom: Material

Steel ✓

Tensile strength

26/30 ✓

Thickness

13/16" ✓

Lower back plate: Material

Steel ✓

Tensile strength

26/30 ✓

Thickness

3/4" ✓

Pitch of stays at wide water space

13 1/2 x 8 1/8" ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working Pressure

225 lbs. ✓

Main stays: Material

Steel ✓

Tensile strength

28/32 ✓

Diameter

At body of stay, or over threads 2 3/4" ✓

No. of threads per inch

6. ✓

Area supported by each stay

306 in² ✓

Working pressure by Rules

180 lbs. ✓

Screw stays: Material

Steel ✓

Tensile strength

26/30 ✓

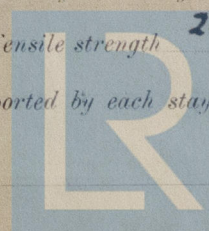
Diameter

At turned off part, or over threads 1 1/2" ✓

No. of threads per inch

9 ✓

Area supported by each stay

59 in² ✓
 Lloyd's Register
 Foundation
 W 66-0051

Working pressure by Rules **212 lbs.** Are the stays drilled at the outer ends **no.** Margin stays: Diameter { At turned off part, or Over threads **1 1/8"**

No. of threads per inch **9.** Area supported by each stay **83"** Working pressure by Rules **183 lbs.**

Tubes: Material **iron** External diameter { Plain **2 1/2"** Thickness **9/16"** No. of threads per inch **9.**

Pitch of tubes **3 3/4" x 3 7/8" wing** Working pressure by Rules **p. 230 lbs. s. 232 lbs.** Manhole compensation: Size of opening in shell plate **13" x 16 1/2"** Section of compensating ring **6 3/4" x 1 1/8"** No. of rivets and diameter of rivet holes **32 - 1 7/32"**

Outer row rivet pitch at ends **8 1/2"** Depth of flange if manhole flanged **—** 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

Inner radius of crown Working pressure by Rules

How connected to shell 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

Number of elements Material of tubes Manufacturers of { Tubes Steel castings 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 **Yes.**

The foregoing is a correct description,
For RICHARDSON & WESTGARTH & CO. LIMITED

Manufacturer.

Dates of Survey { During progress of work in shops - - } **See Machinery report**
while building { During erection on board vessel - - }

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) **Yes.**
Total No. of visits

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

The materials and workmanship are good.
These boilers have been constructed under special survey in accordance with the Rules and approved Plan. They have been securely fitted aboard and their safety valves have been adjusted and tested under steam with satisfactory results.

Survey Fee ... £ **See Mach 4. Report** When applied for, 192
Travelling Expenses (if any) £ When received, 192

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 13 SEP 1925

Assigned **See Minute on**
Mat. Rpt 13808

