

# REPORT ON BOILERS.

No. 28960

Received at London Office

-2 DEC 1924

Site of writing Report

102

When handed in at Local Office

-1 DEC 1924

Port of

SUNDERLAND

No. in Survey held at

Sunderland

Date, First Survey

Last Survey

Dec. 1st 1924

g. Book.

on the **SS FYLINGDALE**

(Number of Visits)

Gross 3918  
Net 2322

Master

Built at **Sunderland**

By whom built **J. L. Thompson & Co**

Yard No. **553**

When built **1924**

Engines made at

**Sunderland**

By whom made

**Richardson & Wadsworth Ltd**

Engine No. **2189**

When made **1924**

Boilers made at

**Sunderland**

By whom made

**Richardson & Wadsworth Ltd**

Boiler No. **2189**

When made **1924**

Nominal Horse Power

Owners **Holland & Marnwood S.S. Co Ltd**

Port belonging to

**Whitby**

## MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Manufacturers of Steel

**The Steel Co of Scotland**

(Letter for Record **S**)

Total Heating Surface of Boilers

**5423 sq ft**

Is forced draught fitted **No**

Coal or Oil fired **Coal**

No. and Description of Boilers

**Two single ended**

Working Pressure **180 lb**

Tested by hydraulic pressure to

**320 lb**

Date of test **15.8.24**

No. of Certificate **3895**

Can each boiler be worked separately **YES**

Area of Firegrate in each Boiler

**63 sq ft**

No. and Description of safety valves to each boiler

**2 spring valves**

Area of each set of valves per boiler

**17.4 sq ft**

Pressure to which they are adjusted

**185 lb**

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

**18"**

Is oil fuel carried in the double bottom under boilers **NO**

Smallest distance between shell of boiler and tank top plating

**23"**

Is the bottom of the boiler insulated **YES**

Largest internal dia. of boilers

**16-6"**

Length **11-0"**

Shell plates: Material

**S**

Tensile strength **28-32**

Thickness

**1 1/32"**

Are the shell plates welded or flanged

**No**

Description of riveting: circ. seams

**end laps with**

Long. seams

**d. lt. riv.**

Diameter of rivet holes in

**1 1/4"**

Pitch of rivets

**3.48"**

Percentage of strength of circ. end seams

**43.1**

Percentage of strength of circ. intermediate seam

**64.6**

Percentage of strength of longitudinal joint

**85.7**

Working pressure of shell by Rules

**180**

Thickness of butt straps

**1 5/32"**

No. and Description of Furnaces in each Boiler

**3 Morrison**

Material

**S**

Tensile strength

**26-28**

Smallest outside diameter

**48 1/2"**

Length of plain part

**3 5/8"**

Thickness of plates

**5/8"**

Description of longitudinal joint

**Welded**

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

Working pressure of furnace by Rules

**188**

End plates in steam space: Material

**S**

Tensile strength

**26-30**

Thickness

**1 1/16"**

Pitch of stays **17 1/4" x 16 1/2"**

How are stays secured

**d. n. & w.**

Working pressure by Rules

**183**

Tube plates: Material

**S**

Tensile strength

**26-30**

Thickness

**29/32"**

Mean pitch of stay tubes in nests

**10.8"**

Pitch across wide water spaces

**14 1/2"**

Working pressure

**190**

Girders to combustion chamber tops: Material

**S**

Tensile strength

**28-32**

Depth and thickness of girder

At centre

**8 x 1 1/2"**

Length as per Rule

**32 3/8"**

Distance apart

**8 3/8"**

No. and pitch of stays

In each

**2, 10"**

Working pressure by Rules

**188**

Combustion chamber plates: Material

**S**

Tensile strength

**26-30**

Thickness: Sides

**1/16"**

Back

**2 1/32"**

Top

**1/16"**

Bottom

**2 1/32"**

Pitch of stays to ditto: Sides

**10 x 8 1/2"**

Back

**8 1/2 x 9 3/4"**

Top

**10 x 8 3/8"**

Are stays fitted with nuts or riveted over **nuts**

Working pressure by Rules

**186**

Front plate at bottom: Material

**S**

Tensile strength

**26-30**

Thickness

**7/8"**

Lower back plate: Material

**S**

Tensile strength

**26-30**

Thickness

**1 3/16"**

Pitch of stays at wide water space

**13 3/4"**

Are stays fitted with nuts or riveted over

**margin. stays riveted**

Working Pressure

**210 lb**

Main stays: Material

**S**

Tensile strength

**28-32**

Diameter

**2 3/4"**

No. of threads per inch

**6**

Area supported by each stay

**284 sq in**

Working pressure by Rules

**194**

Screw stays: Material

**S**

Tensile strength

**26-30**

Diameter

**1 5/8"**

No. of threads per inch

**9**

Area supported by each stay

**83 3/4 sq in**



# REPORT ON BOILERS

Working pressure by Rules 181 Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, 1 3/4 or Over threads 1 3/4

No. of threads per inch 9 ✓ Area supported by each stay 95.4 Working pressure by Rules 190

Tubes: Material 2mm ✓ External diameter { Plain 3 1/2 Stay 3 1/2 ✓ Thickness { 5/16 7/16 No. of threads per inch 9

Pitch of tubes 4 7/8 x 4 5/8 ✓ Working pressure by Rules 207 Manhole compensation: Size of opening

shell plate 16 x 12 ✓ Section of compensating ring 16 1/2 x 1 3/4 ✓ No. of rivets and diameter of rivet holes 22, 1 1/2 ✓

Outer row rivet pitch at ends 9 3/8 ✓ Depth of flange if manhole flanged ✓ 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 pitch \_\_\_\_\_

of rivets in outer row in dome connection to shell \_\_\_\_\_

Type of Superheater NONE 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 or 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 23 inclusive for boilers been complied with \_\_\_\_\_

For RICHARDSONS, WESTGARTH & Co. LIMITED

*William St. Russell*

The foregoing is a correct description,

Manufactured

Dates of Survey { During progress of work in shops -- } Please see Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel -- } Machinery Total No. of visits \_\_\_\_\_

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

*These Boilers have been built under special survey, the materials and workmanship are sound and good and they have been fitted and found in the vessel in a satisfactory manner.*

Survey Fee ... .. £ Please see Machinery Report When applied for, 192

Travelling Expenses (if any) £ \_\_\_\_\_ When received, 192

*H. A. H. L. Schwan*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 2 DEC 1924

Assigned See other report  
Sld 56 28960



© 2020

Lloyd's Register Foundation