

REPORT ON BOILERS.

No. 30151

Received at London Office

-2 OCT 1929

Date of writing Report 28th Sept. 1929

When handed in at Local Office 1st October 1929

Port of Sunderland

No. in Survey held at opening Book.

Sunderland

Date, First Survey

Last Survey

Sep. 26 1929

on the

S.S. "DUNSLEY"

(Number of Visits)

Tons

Gross 3861.95.
Net 2317.06.

Master

Built at Sunderland

By whom built

Robert Thompson & Sons Ltd

Yard No. 336

When built 1929

Engines made at

Sunderland

By whom made

The North Eastern Marine Eng. Co. Ltd.

Engine No. 2717

When made 1929

Boilers made at

Sunderland

By whom made

The North Eastern Marine Eng. Co. Ltd.

Boiler No. 2720

When made 1929

Nominal Horse Power

340

Owners

Rowland & Farwood's S.S. Co. Ltd.

Port belonging to

Whitty

MULTITUBULAR BOILERS, MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Limited

(Letter for Record (S))

Total Heating Surface of Boilers

930 sq

Is forced draught fitted

ho

Coal or Oil fired

Coal

and Description of Boilers

One Single Ended Marine Type

Working Pressure 180 lbs. sq.

tested by hydraulic pressure to

320 lbs. sq.

Date of test

20.8.29

No. of Certificate

4050

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

28 sq

No. and Description of safety valves to each boiler

Two direct spring loaded.

Area of each set of valves per boiler

per Rule

5.963.

Pressure to which they are adjusted

185 lbs. sq.

Are they fitted with easing gear

Yes.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

ho.

Non-return valve fitted.

Smallest distance between boilers or uptakes and bunkers or woodwork

Fitted in Tween Decks

Is oil fuel carried in the double bottom under boilers

✓

Smallest distance between shell of boiler and tank top plating

Fitted in Tween Deck.

Is the bottom of the boiler insulated

ho

Largest internal dia. of boilers

10'-4 1/2"

Length

10'-6"

Full Shell plates: Material

Steel

Tensile strength 28-32 tons sq.

Thickness

55/64"

Are the shell plates welded or flanged

ho.

Description of riveting: circ. seams

end D.R. LAP.

g. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

15/16"

long. seams

15/16"

Pitch of rivets

3"

6 3/4"

Percentage of strength of circ. end seams

plate

68.75

ribs

44.0

Percentage of strength of circ. intermediate seam

plate

✓

Percentage of strength of longitudinal joint

plate

86.11

ribs

91.75

combined

90.5

Working pressure of shell by Rules

180 lbs. sq.

Thickness of butt straps

outer 2 3/32"

inner 2 5/32"

No. and Description of Furnaces in each Boiler

Two Corrugated Deighton Section.

Material

Steel

Tensile strength 26-30 tons sq.

Smallest outside diameter

2'-9 5/8"

Length of plain part

top

bottom

Thickness of plates

circ. seams

7/16"

Description of longitudinal joint

Weld.

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

Working pressure of furnace by Rules

185.5 lbs. sq.

and plates in steam space: Material

Steel

Tensile strength 26-30 tons sq.

Thickness

15/16"

Pitch of stays 18 1/2" x 14 1/8"

How are stays secured

Double nuts and Washers.

Working pressure by Rules

180 lbs. sq.

be plates: Material

front

Steel

Tensile strength

26-30 tons sq.

Thickness

15/16"

back

Steel

Tensile strength

26-30 tons sq.

Thickness

25/32"

Can pitch of stay tubes in nests

10.75 sq.

Pitch across wide water spaces

14 1/2" x 9"

Working pressure

front 202 lbs. sq. (w. w. space)

back 189.5 lbs. sq.

Orders to combustion chamber tops: Material

Steel

Tensile strength 28-32 tons sq.

Depth and thickness of girder

centre

8' x 1 1/16"

Length as per Rule

2'-5 1/4"

Distance apart

9 1/2"

No. and pitch of stays

each

2 @ 9 1/2"

Working pressure by Rules

184.8 lbs. sq.

Combustion chamber plates: Material

Steel.

Tensile strength

26-30 tons sq.

Thickness: Sides

23/32"

Back

23/32"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

10 1/2" x 9 1/2"

Back

10 1/4" x 9 1/4"

Top

9 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

Fitted with nuts.

Working pressure by Rules

181 lbs. sq. (SIDES)

Front plate at bottom: Material

Steel

Tensile strength 26-30 tons sq.

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength 26-30 tons sq.

Thickness

15/16"

Pitch of stays at wide water space

14 1/4" x 10 1/4"

Are stays fitted with nuts or riveted over

Fitted with nuts.

Working Pressure

235 lbs. sq.

Main stays: Material

Steel

Tensile strength 28-32 tons sq.

meter

At body of stay,

2 3/8"

No. of threads per inch

6

Area supported by each stay

261.3 sq.

Working pressure by Rules

184 lbs. sq.

Screw stays: Material

Steel

Tensile strength 26-30 tons sq.

meter

At turned off part,

1 3/4"

No. of threads per inch

9

Area supported by each stay

99.94 sq.

Working pressure by Rules 181.5 lbs. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 1/8" Over threads }
 No. of threads per inch 9 Area supported by each stay 117.845 sq" Working pressure by Rules 181 lbs.
 Tubes: Material Steel External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 8 W.G. 1/4" & 5/16" No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules PLAIN - 230 lbs. STAY 4 = 206 lbs. 5/16 = 130 " Manhole compensation: Size of opening in
 shell plate 20" x 16" Section of compensating ring 11 1/16" x 1/8" No. of rivets and diameter of rivet holes 32 @ 1 1/16"
 Outer row rivet pitch at ends 6 3/4" 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 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 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 Yes.

The foregoing is a correct description,

John Neill Manufacturer.

Manager.

Dates of Survey { During progress of work in shops - - }
 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 Donkey Boiler has been built under Special Survey and Satisfactorily fitted in the vessel. The Materials and Workmanship are good. For notation please See Machinery Report.

Special note. After the trial trip of the vessel, the Donkey Boiler was damaged through shortage of water which caused the two furnaces to collapse and started the tubes in the tube plates. The Donkey Boiler was blanked off and the vessel proceeded to sea. Permanent repairs will be effected at the first convenient opportunity. The Owners do not at present require the notation for Donkey Boiler in the Register Book.

Survey Fee £

Travelling Expenses (if any) £

When applied for,

192

When received,

192

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 8 OCT 1921

Assigned

See p. 6. if attached



© 2021

Lloyd's Register Foundation