

REPORT ON BOILERS.

No. 53267

17 FEB 1933

Received at London Office

Date of writing Report

16

When handed in at Local Office

16

2

1933

Port of

GLASGOW.

No. in Reg. Book.

Survey held at

GLASGOW.

Date, First Survey

13. 8. 24

Last Survey

13-2-1933

(Number of Visits

21

Gross

71

Tons

Net

1

on the

S E Marine Boiler

Master

Built at

Bowling

By whom built

Scott Sons

Yard No.

303

When built

1933.

Engines made at

Aurelian Warrham

By whom made

Hughes Lancaster

Engine No.

When made

1920.

Boilers made at

GLASGOW.

By whom made

A & W. Dalglisk

Boiler No.

804. When made

1933.

Nominal Horse Power

48

Owners

The Lords Commissioners of the Admiralty

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record

3 ✓)

Total Heating Surface of Boilers

990 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal ✓

No. and Description of Boilers

One S.E. Marine

Working Pressure

180 lbs ✓

Tested by hydraulic pressure to

320 lbs

Date of test

1-2-33.

No. of Certificate

19206

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

34.4 sq ft

No. and Description of safety valves to each boiler

2 S.L. ✓

Area of each set of valves per boiler

per Rule

as fitted

4.96 sq ft

Pressure to which they are adjusted

Are they fitted with easing gear

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

Well clear

Is oil fuel carried in the double bottom under boilers

✓

Smallest distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

Largest internal dia. of boilers

11'-0"

Length

9'-6"

Shell plates: Material

S

Tensile strength

28-32 tons

Thickness

15"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

DR Lap. ✓

long. seams

TR. D.B.S. ✓

Diameter of rivet holes in

circ. seams

1 1/16"

long. seams

Pitch of rivets

3 1/4"

6 1/4"

Percentage of strength of circ. end seams

plate

64.3

Percentage of strength of circ. intermediate seam

plate

rivets

44.4

Percentage of strength of longitudinal joint

plate

85.

Working pressure of shell by Rules

183 lbs

Thickness of butt straps

outer

23/32"

inner

24/32"

No. and Description of Furnaces in each Boiler

Two Plain

Material

S

Tensile strength

26-30 tons

Smallest outside diameter

3'-4 1/2"

Length of plain part

top

5'-11 19/32"

bottom

5'-10"

Thickness of plates

crown

23/32"

bottom

Description of longitudinal joint

Weld

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

3 1/2" x 3 1/2" x 3/4"

Working pressure of furnace by Rules

15"

Pitch of stays

15" x 14 1/2"

End plates in steam space: Material

S

Tensile strength

26-30 tons

Thickness

16"

Pitch of stays

15" x 14 1/2"

How are stays secured

Double Nut

Working pressure by Rules

185 lbs

Tube plates: Material

front

S

back

S

Tensile strength

26-30 tons

Thickness

3/4"

Working pressure

front

181 lbs

Mean pitch of stay tubes in nests

10.4"

Pitch across wide water spaces

13 1/2"

Working pressure

back

186 lbs.

Girders to combustion chamber tops: Material

S

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

4 3/4" x 8 3/16"

Length as per Rule

2'-4 21/32"

Distance apart

8"

No. and pitch of stays

in each

2 @ 8 3/4"

Working pressure by Rules

185 lbs

Combustion chamber plates: Material

S

Tensile strength

26-30 tons

Thickness: Sides

5/8"

Back

32"

Top

32"

Bottom

8"

Pitch of stays to ditto: Sides

8 3/4" x 8 1/2"

Back

4 1/2" x 8 1/2"

Top

8" x 8 3/4"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

182 lbs

Front plate at bottom: Material

S

Tensile strength

26-30 tons

Thickness

13/16"

Lower back plate: Material

S

Tensile strength

26-30 tons

Thickness

13/16"

Pitch of stays at wide water space

13" x 8 1/2"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

222 lbs

Main stays: Material

S

Tensile strength

28-32 tons

Diameter

At body of stay,

2 3/8"

Over threads

No. of threads per inch

6

Area supported by each stay

214.5 sq in

Working pressure by Rules

181

Screw stays: Material

S

Tensile strength

26-30 tons

Diameter

At turned off part,

1 1/8"

Over threads

No. of threads per inch

9

Area supported by each stay

44.34 sq in

Lloyd's Register

2020

W1205-0096

Working pressure by Rules 206 lbs. Are the stays drilled at the outer ends No Margin stays: Diameter { At turn d off part, 1 3/4" or Over threads 1 3/4" No. of threads per inch 9 Area supported by each stay 84.12 sq. in. Working pressure by Rules 206 lbs. Tubes: Material L.W. Iron External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 8 W.G. 5/16" No. of threads per inch 9. Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 230 lbs. Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 30" x 26" x 1 5/16" No. of rivets and diameter of rivet holes 32 @ 1 1/16" Outer row rivet pitch at ends 6 1/2" 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 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

The foregoing is a correct description,
A. F. W. Dalglish Manufacturer.

Dates of Survey { During progress of work in shops - 1924 Aug. 13-20 Sep. 4 Nov. 27 Dec. 4-23 (1925) Jan. 11-21 (1926) Feb. 3 while building { During erection on board vessel - Mar. 1 Aug. 20 (1927) Feb. 14 Mar. 2 Oct. 16-17 Nov. 4 (1931) June 3 Dec. 30 (1932) Dec. 13 (1933) Feb. 1-13 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) yes. Total No. of visits 21

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built to approved plans, under special survey, in accordance with the Society's Rules. Materials and workmanship are good. It has been properly fitted on board M. M. Scott Home No 303.

Survey Fee ... £ 6 - 12 - 0 When applied for, Mon aft 19

Travelling Expenses (if any) £ : : When received, 19

For J. Barr self H. L. Luthers

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute PM. 17 FEB 1934

Assigned Sec. F. B. Rpl