

REPORT ON BOILERS.

No. 24325

Received at London Office

30 JUL 1947

Date of writing Report

28-7-1947

19

When handed in at Local Office

28-7-1947

Port of

Antwerp.

No. in Survey held at

Antwerp.

Date, First Survey

6-11-46.

Last Survey

1st Time

1947.

on the

S.S. "HEMBURY" ex H.M.S. "GREENWICH"

(Number of Visits

11)

Gross

Tons

Net

Master

Built at

Newcastle-on-Tyne

By whom built

Wm. Robson Ltd.

Yard No.

184

When built

1915

Engines made at

Wallsend-on-Tyne

By whom made

Swan, Hunter & Wigham Richardson

Engine No.

When made

1913.

Boilers made at

Stockton

By whom made

Sudron Ltd.

Boiler No.

When made

1913.

Nominal Horse Power

Owners

J & R Gault Ltd.

Port belonging to

London.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (stated) John Spencer Sons Ltd.

(Letter for Record

)

Total Heating Surface of Boilers

1076 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal.

No. and Description of Boilers

One - Single-End Scotch Type.

Working Pressure

100 lbs/sq in.

Tested by hydraulic pressure to

200 lbs/sq in.

Date of test

25-5-47.

No. of Certificate

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

32.8 sq ft

No. and Description of safety valves to each boiler

Two direct spring loaded.

Area of each set of valves per boiler

per Rule

as fitted

16.4

Pressure to which they are adjusted

100 lbs/sq in.

Are they fitted with easing gear

Yes.

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

No - Non Return Valve fitted

Smallest distance between boilers or uptakes and bunkers or woodwork

Fitted in tween deck

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

No

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

10' - 10 1/16"

Length

9' 6"

Shell plates: Material

Steel

Tensile strength

29.7-32.3 tons/sq in.

Thickness

21/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

inter

Long. seams

T.R. Lap.

Diameter of rivet holes in

circ. seams

long. seams

15/16"

15/16"

Pitch of rivets

3 1/4"

3 1/16"

Percentage of strength of circ. end seams

plate

64.0

rivets

50.8

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

76.1

rivets

91.0

combined

84.2

Working pressure of shell by Rules

103 lbs/sq in.

Thickness of butt straps

outer

inner

No. and Description of Furnaces in each Boiler

2 - Plain Welded.

Material

Steel

Tensile strength

26-30 tons/sq in.

Smallest outside diameter

3' 4 1/2"

Length of plain part

top

bottom

6' - 6 13/16"

6' - 10 9/16"

Thickness of plates

crown

bottom

19/32"

Description of longitudinal joint

Weld.

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

Working pressure of furnace by Rules

102 lbs/sq in.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons/sq in.

Thickness

3/4"

Pitch of stays

15 3/4" x 14 3/4"

How are stays secured

Double Nuts & Washers.

Working pressure by Rules

102 lbs/sq in.

Tube plates: Material

front

back

Steel.

Tensile strength

26-30 tons/sq in.

Thickness

1/2"

Mean pitch of stay tubes in nests

9"

Pitch across wide water spaces

15 1/2"

Working pressure

106 lbs/sq in. (w.w. space).

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons/sq in.

Depth and thickness of girder

At centre

5 3/4" x 5 7/8"

Length as per Rule

27"

Distance apart

8"

No. and pitch of stays

At each

2 x 7"

Working pressure by Rules

111 lbs/sq in.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons/sq in.

Thickness: Sides

1/2"

Back

1/2"

Top

1/2"

Bottom

27/32"

Pitch of stays to ditto: Sides

7" x 7 1/2"

Back

7 3/4" x 7 1/2"

Top

8" x 7"

Are stays fitted with nuts or riveted over

Fitted with nuts

Working pressure by Rules

101 lbs/sq in. (Sides)

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons/sq in.

Thickness

3/4"

Lower back plate: Material

Steel

Tensile strength

26-30 tons/sq in.

Thickness

3/4"

Pitch of stays at wide water space

14" x 7 3/4"

Are stays fitted with nuts or riveted over

Fitted with nuts.

Working Pressure

205 lbs/sq in.

Main stays: Material

Steel

Tensile strength

27-29.8 tons/sq in.

Diameter

At body of stay,

or

Over threads

No. of threads per inch

8

Area supported by each stay

242 sq in.

Working pressure by Rules

108 lbs/sq in.

Screw stays: Material

Steel

Tensile strength

26-29.8 tons/sq in.

Diameter

At turned off part,

or

Over threads

No. of threads per inch

9.

Area supported by each stay

58.2 sq in. (Backs).



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Working pressure by Rules 113 lbs/sq. in. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 3/8" x 1 1/2"
No. of threads per inch 8 Area supported by each stay 52.5 sq. in. Working pressure by Rules 112 lbs/sq. in.
Tubes: Material Steel External diameter { Plain 3 1/2" Thickness { 5/16" x 3/8" No. of threads per inch 9
Pitch of tubes 1 1/2" x 1 1/4" Working pressure by Rules 112 lbs/sq. in. Manhole compensation: Size of opening in No. in g. Boil
shell plate 16" x 12" Section of compensating ring 5 1/2" x 7/8" No. of rivets and diameter of rivet holes 34 C 1 5/16"
Outer row rivet pitch at ends 3 15/16" Depth of flange if manhole flanged
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 forgings 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 unf
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 o. an
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure tested
tubes forgings and 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,

Manufacturer

Dates { During progress of work in shops - - }
of Survey { During erection on board vessel - - - }

Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)

Total No. of visits

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.)

Please see Report 9. for details of Recommendations etc.

Survey Fee ... £ : : } When applied for, 19
Travelling Expenses (if any) £ : : } When received, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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