

REPORT ON BOILERS.

No. 51732

Received at London Office 17 SEP 1942

Report 7.9. 1942. when handed in at Local Office

Port of HULL.

Survey held at HULL.

Date, First Survey 11.6.42. Last Survey 24.8. 1942.

on the

NCP. 18.

(Number of Visits 9)

Gross Tons

By whom built

Yard No.

When built

made at HULL.

By whom made Chas D. Holmes & Co

Engine No. 1599 When made 1942.

made at HULL.

By whom made Chas D. Holmes & Co

Boiler No. 1614 When made 1942.

Horse Power 156.

Owners ROYAL INDIAN NAVY.

Port belonging to

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Corporation of Scotland Ltd

(Letter for Record 5.)

Heating Surface of Boilers

2650 ϕ .

Is forced draught fitted Yes.

Coal or Oil fired Coal

Description of Boilers

One S.B.

Working Pressure 200 lb/sq. in.

Hydraulic pressure to

3500 ϕ .

Date of test 24-7-42.

No. of Certificate 4156.

Can each boiler be worked separately

Firegrate in each Boiler

63 ϕ .

No. and Description of safety valves to each boiler

2. Spring loaded

each set of valves per boiler

per Rule 15-4.0

as fitted 16-6.0

Pressure to which they are adjusted

Are they fitted with easing gear

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

distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

internal dia. of boilers

14'-9 $\frac{3}{8}$ "

Length 11'-6"

Shell plates: Material

Steel.

Tensile strength 29/33 tons/sq. in.

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end D.R. lap.

ms T.R. : D.B.S.

Diameter of rivet holes in

circ. seams 1 $\frac{3}{8}$ "

long. seams 1 $\frac{3}{8}$ "

Pitch of rivets

4"

age of strength of circ. end seams

plate 65.6%

rivets 44.7%

Percentage of strength of circ. intermediate seam

plate

age of strength of longitudinal joint

plate 85.5%

rivets 88.5%

combined 88.8%

ss of butt straps

outer 1 $\frac{1}{8}$ "

inner

No. and Description of Furnaces in each Boiler

3. cf. Deighton Section.

l Steel

Tensile strength 26-30 tons/sq. in.

Smallest outside diameter 3'-6 $\frac{1}{16}$ "

of plain part

top

bottom

Thickness of plates

crown 1 $\frac{1}{32}$ "

bottom 1 $\frac{1}{32}$ "

Description of longitudinal joint

Weld.

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

None.

ates in steam space: Material

Steel.

Tensile strength

26-30 tons/sq. in.

Thickness

1 $\frac{1}{32}$ "

Pitch of stays

21" x 20" man

re stays secured

Nuts inside and out.

lates: Material

front Steel

back Steel.

Tensile strength

26-30 tons/sq. in.

Thickness

7 $\frac{1}{8}$ "

25 $\frac{1}{32}$ "

itch of stay tubes in nests

9 $\frac{1}{16}$ "

Pitch across wide water spaces

13 $\frac{5}{8}$ "

s to combustion chamber tops: Material

Steel.

Tensile strength

28.32 tons/sq. in.

Depth and thickness of girder

8 $\frac{1}{4}$ " x 1 $\frac{3}{8}$ "

Length as per Rule

2'-7 $\frac{1}{2}$ "

Distance apart

10 $\frac{3}{4}$ "

No. and pitch of stays

2 @ 9 $\frac{7}{8}$ "

Combustion chamber plates: Material

Steel.

strength

26-30 tons/sq. in.

Thickness: Sides

2 $\frac{1}{32}$ "

Back

3 $\frac{1}{4}$ "

Top

2 $\frac{1}{32}$ "

Bottom

2 $\frac{1}{32}$ "

f stays to ditto: Sides

10 $\frac{3}{4}$ " x 9 $\frac{7}{8}$ "

Back

9 $\frac{1}{4}$ " x 9 $\frac{7}{8}$ "

Top

10 $\frac{3}{4}$ " x 9 $\frac{7}{8}$ "

Are stays fitted with nuts or riveted over

Nuts.

plate at bottom: Material

Steel.

Tensile strength 26-30 tons/sq. in.

ss

7 $\frac{1}{8}$ "

Lower back plate: Material

Steel

Tensile strength 26-30 tons/sq. in.

Thickness

7 $\frac{1}{8}$ "

f stays at wide water space

14 $\frac{1}{2}$ " x 9 $\frac{7}{8}$ "

Are stays fitted with nuts or riveted over

Nuts.

stays: Material

Steel

Tensile strength 28-32 tons/sq. in.

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

stays: Material

Steel

Tensile strength 26-30 tons/sq. in.

At turned off part,

1 $\frac{7}{8}$ "

No. of threads per inch

9

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

At body of stay,

3 $\frac{1}{8}$ "

No. of threads per inch

6

Over threads

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Lloyd's Register Foundation

Are the stays drilled at the outer ends No. Margin stays: Diameter 2" At turned on part or Over threads 2"

No. of threads per inch 9

Tubes: Material Steel External diameter 2 3/4" Thickness 3/16" No. of threads per inch 9

Pitch of tubes 3 3/8" x 3 3/8" Manhole compensation: Size of opening in shell plate 6" x 20" Section of compensating ring 1 5/8" x 20" No. of rivets and diameter of rivet holes 15 @ 1 7/32"

Outer row rivet pitch at ends 10 1/8" Depth of flange if manhole flanged 3 1/4" 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

Internal diameter Thickness of crown

stays Inner radius of crown

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 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

Pressure to which the safety valves are adjusted Hydraulic test pressure:

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 Yes

The foregoing is a correct description,
For CHARLES B. H. & CO., LTD.
Manufacturer.

Dates of Survey: During progress of work in shops - 1942 June 11, 18, July 9, 14, 22, 23, Aug. 19, 24 Are the approved plans of boiler and superheater forwarded herewith 17-3-34 (If not state date of approval.)

while building: During erection on board vessel - Aug. 19, 24 Total No. of visits 9

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. H.M.T. BIRCH. Hul Rpt. 50672.

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

The Boiler has been constructed under special survey in accordance with approved Admiralty plans, and the Rule. The Workmanship and material are good and, when subjected to an hydraulic test of 350 lbs/sq. in. it was found satisfactory in every respect.

The Boiler is being dispatched to India complete (lagging independently) where it will be fitted on board and the safety valves adjusted.

Survey Fee ... £ : : When applied for, 19

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

J. P. H. ...
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned