

REPORT ON BOILERS.

Slid. N° 34597

Hull No. 18090.

19 DEC 1946

Received at London Office

11 JUL 1946

Date of writing Report 4th July 1946 When handed in at Local Office 8th July 1946

Port of Middlesbrough.

No. in Survey held at 22 Station. n. Sus.

Date, First Survey 14th Nov. 1945 Last Survey 2nd July 1946

(Number of Visits 20) Gross 8582 Tons Net 4919

on the BRITISH HOLLY

Built at Sunderland By whom built Sir J Lang & Sons L^d

Engines made at Sunderland By whom made Wm. Dafford & Co.

Boilers made at Station. n. Sus. By whom made Station C.E. & Riley Baker L^dNominal Horse Power Owners British Tanker Co L^d

Yard No. 440 When built 1946

Engine No. 256 When made

Boiler No. 6936 When made 1946.

Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Frodingham Steel Co L^d

Total Heating Surface of Boilers 2020 sq ft Is forced draught fitted No

(Letter for Record 5.

No. and Description of Boilers 1 SE. Multitubular

Coal or Oil fired Oil & gas

Tested by hydraulic pressure to 275 lb. Date of test 2/7/46 No. of Certificate 7180 Working Pressure 150 lb/sq in

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 3" double high lift. Can each boiler be worked separately No

Area of each set of valves per boiler (per Rule 10.2 as fitted 14.12 Pressure to which they are adjusted 150 lb/sq in Are they fitted with easing gear No

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

Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated No

Largest internal dia. of boilers 12'-10 3/4" Length 11'-6" Shell plates: Material Steel Tensile strength 29-33.

Thickness 29/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams (end DR. Lap, inter. 3.187" Pitch of rivets 1 1/2"

long. seams TR-D.B.S. Diameter of rivet holes in (circ. seams 1 1/4" long. seams 1 1/2" Percentage of strength of circ. end seams (plate 66.6% rivets 48.7% combined 84.9%

Percentage of strength of circ. intermediate seam (plate 84.9% rivets 103% combined 103%

Percentage of strength of longitudinal joint (plate 84.9% rivets 103% combined 103%

Thickness of butt straps (outer 29/32" inner 27/32" No. and Description of Furnaces in each Boiler 2. Deep Corrugated

Material Steel Tensile strength 26-30 Smallest outside diameter 3'-10"

Length of plain part (top 1' bottom 1' Thickness of plates (crown 1/2" bottom 1/2" Description of longitudinal joint welded.

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

End plates in steam space: Material Steel Tensile strength 26-30 Thickness 1" Pitch of stays 18" x 17"

How are stays secured Double nut & washers - screws into both plates

Tube plates: Material (front Steel Tensile strength 26-30 Thickness 7/8" 3/4"

Mean pitch of stay tubes in nests 9 1/8" Pitch across wide water spaces 13 1/2"

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 Depth and thickness of girder

at centre 7" - 2 x 5 1/2" Length as per Rule 2'-3 1/2" Distance apart 9" No. and pitch of stays

in each 2 x 9" Combustion chamber plates: Material Steel

Tensile strength 26-30 Thickness: Sides 2 1/2" Back 1 9/32" Top 2 1/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 10" x 9" Back 9 1/2" x 8 1/4" Top 9" x 9" Are stays fitted with nuts or riveted over nuts

Front plate at bottom: Material Steel Tensile strength 26-30

Thickness 7/8" Lower back plate: Material Steel Tensile strength 26-30 Thickness 3/4"

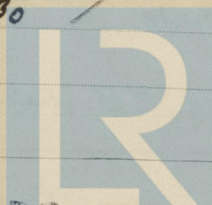
Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts

Main stays: Material Steel Tensile strength 28-32

Diameter (At body of stay, or Over threads 2 3/4" No. of threads per inch 6

Screw stays: Material Steel Tensile strength 26-30

Diameter (At turned off part, or Over threads 1 1/2" No. of threads per inch 9



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Are the stays drilled at the outer ends

Yes

Margin stays: Diameter

At turned off part,
or
Over threads

1 3/4"

No. of threads per inch

9

Tubes: Material

Seamless Steel

External diameter

Plain 2 1/2"
Stay 2 1/2"

Thickness

10 SWG
5/16"

No. of threads per inch

9

Pitch of tubes

3 3/4" x 3 3/4"

Manhole compensation: Size of opening in

shell plate

21" x 17"

Section of compensating ring

8 3/4" x 1 1/8"

No. of rivets and diameter of rivet holes

52 - 1 1/4"

Outer row rivet pitch at ends

7 1/16"

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

Thickness of crown

No. and diameter of

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

The foregoing is a correct description,

At 90 only

Manufacturer.

Dates

During progress of

of Survey

work in shops - -

while

building

building

During erection on

board vessel - - -

1945 Nov. 14, 23, 29, Dec. 14, 20, 28, 1946 Jan. 11, 16,
Feb. 7, 14, 28, Mar. 7, 29, 26, May 10, 20,
30, June 4, 13, July 2.

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

19/2/45

Total No. of visits

20

Is this Boiler a duplicate of a previous case

Yes

If so, state Vessel's name and Report No.

Hi also Report No. 18052

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

This boiler has been constructed under Special Survey & in accordance with the approved Plan & Rule Requirements.

The materials & workmanship are good & on completion the boiler was hydraulically tested to 275 lb/sq. in. & found satisfactory.

This boiler is being dispatched to Sunderland for Wm. Douglas & Co. Ltd. N° 256.

This boiler has been securely fitted on board the vessel & safety valves adjusted to working pressure as above.

In recommendation please see Machinery Dept.

H. St. James.

Survey Fee

£ 20 : 5 : 0

When applied for,

10/7/46

Travelling Expenses (if any) £

When received,

19

C. H. Stuart

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 10 JAN 1947

Assigned

See F.E. Mch. rpt.



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