

99
Rpt. 5a.
4 AUG 1944
N.D.C.

REPORT ON BOILERS.

Sld. No. 34094
Mch No. 17687.

Received at London Office

10 AUG 1944

Date of writing Report 5th Aug. 1944 When handed in at Local Office 9th Aug. 1944 Port of Middlesbrough.

No. in Survey held at
g. Book.

Stockton n. Juss.

Date, First Survey 19th November 43 Last Survey 2nd August 1944

"REGISTAN"

(Number of Visits 19.) Tons { Gross 7368
Net 5039

on the

Sunderland

By whom built Wm Bayford & Son L^{td}

Yard No. 420 When built 1944

Engines made at Sunderland.

By whom made Wm Dapra & Sons

Engine No. 720 When made 1944

Boilers made at Stockton n. Juss.

By whom made H. H. & C. E. & Riley Bros. L^{td}

Boiler No. 6843 When made 1944

Nominal Horse Power 516.

Owners F. C. Strick L^{td}

Port belonging to London.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley & Hodgkinson Steel Co. L^{td}

(Letter for Record 5.

Total Heating Surface of Boilers

2130 sq ft

Is forced draught fitted

Coal or Oil fired oil

No. and Description of Boilers

1. SE. Marine.

Working Pressure 120 lb/sq in

Tested by hydraulic pressure to

230 lb.

Date of test 2/8/44

No. of Certificate 7120

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler 1-3" safety SV. High lift.

Area of each set of valves per boiler { per Rule 19.7. In ordinary valves
as fitted 14.1

Pressure to which they are adjusted 120 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

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

12'-10 9/16" Length 11'-6"

Shell plates: Material Steel

Tensile strength 29-33.

Thickness

23/32"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end D.R.

Long. seams

T.R. D.B.S.

Diameter of rivet holes in

circ. seams 1 1/16"
long. seams 1 3/16"

Pitch of rivets

3-2 3/8"
5 15/16"

Percentage of strength of circ. end seams

plate 67.19
rivets 60.4

Percentage of strength of circ. intermediate seam

plate
rivets

Percentage of strength of longitudinal joint

plate 86.31
rivets 93.53
combined 87.84

Thickness of butt straps

outer 9/16"
inner 1 1/16"

No. and Description of Furnaces in each Boiler

3 Deighton Corrugated.

Material

Steel

Tensile strength

26-30

Smallest outside diameter

3'-0 1/4"

Length of plain part

top
bottom

Thickness of plates

crown
bottom

3/8"

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

29/32"

Pitch of stays 18" x 16"

How are stays secured

Fitted double nuts & washers & stays screwed thro' plate

Tube plates: Material

front
back

Steel

Tensile strength

26-30

Thickness

1 1/16"

1 1/16"

Mean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

13 1/2"

Girders to combustion chamber tops: Material

Steel

Tensile strength

26-30

Depth and thickness of girder

at centre

8" - 2 @ 1 1/16"

Length as per Rule

2'-8 3/8"

Distance apart

10"

No. and pitch of stays

in each

2 - 10"

Combustion chamber plates: Material

Steel.

Tensile strength

26-30

Thickness: Sides

5/8"

Back

9/16"

Top

5/8"

Bottom

5/8"

Pitch of stays to ditto: Sides

10" x 9"

Back

10" x 8 1/4"

Top

10" x 10"

Are stays fitted with nuts or riveted over

nuts.

Front plate at bottom: Material

Steel

Tensile strength

26-30

Thickness

1 1/16"

Lower back plate: Material

Steel

Tensile strength

26-30

Thickness

1 1/16"

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 3/8"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26-30

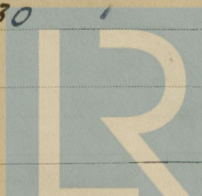
Diameter

At turned off part,
or
Over threads

1 3/8" - 1 1/2" - 1 5/8"

No. of threads per inch

9



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Are the stays drilled at the outer ends

20 ✓

Margin stays: Diameter { At turned off part, or Over threads 1 1/2" - 1 5/8" ✓

No. of threads per inch

9 ✓

Tubes: Material L.W. Iron ✓

External diameter { Plain 2 3/4" Stay 2 3/4" ✓

Thickness { 8 W.G. 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 20" x 16" ✓

Section of compensating ring 7" x 1" ✓

No. of rivets and diameter of rivet holes 44 - 5/16" ✓

Outer row rivet pitch at ends 6" ✓

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

For and on behalf of STOCKTON ENGINEERS & BOILER MAKERS LTD

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - April 19, May 4, 10, 22, June 2, 6, 12, 20, 28, July 3, 12, 20, Aug 2. During erection on board vessel - - - }

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

1943 Nov. 19, Dec. 9, 30, 1944 Jan 27, Feb. 23, March 28, April 19, May 4, 10, 22, June 2, 6, 12, 20, 28, July 3, 12, 20, Aug 2.

Total No. of visits 19

4/2/42

Is this Boiler a duplicate of a previous case

Yes

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

M'dro Rpt No. 17657.

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

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

The materials used & the workmanship are good, & on completion the boiler was hydraulically tested to 230 lb/sq. with satisfactory results.

This boiler is being dispatched to Sunderland for Henry Wm. Dwyer's Contract No. 720.

This boiler has been securely fixed on board & safety valves adjusted to working pressure as above. In recommendation please see Machy. Rpt.

D. H. Haser.

Survey Fee ... £ 14 : 4 :

When applied for, 9-8-1944

Travelling Expenses (if any) £ :

When received, 19

C. Norman Stuart

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THURS 21 DEC 1944

Assigned

See Sld fe. machy rpt-34096



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