

REPORT ON BOILERS.

No. 34460

RECEIVED

2 MAY 1946

Received at London Office

3 MAY 1946

Date of writing Report

19

When handed in at Local Office

2 MAY 1946

Port of

Sunderland.

No. in
Reg. Book.

Surrey held at

Sunderland

Date, First Survey

27 Jan

Last Survey

26 Apr

1946

on the

35 "WAVE PREMIER"

(Number of Visits 18)

Gross
Tons
Net

Built at

Haverston Hill

By whom built

Furness S. B. Co. Ld.

Yard No.

389

When built

1946

Engines made at

Hartlepool

By whom made

Richardson Westgarth & Co. Ld.

Engine No.

2453

When made

1946

Boilers made at

Sunderland

By whom made

G. Blair (1930) Ld.

Boiler No.

2453

When made

1946

Nominal Horse Power

Owners

The Admiralty

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland & Appleby Rotherham.

(Letter for Record S.)

Total Heating Surface of Boilers

4160 sq ft

Is forced draught fitted

Yes.

Coal or Oil fired

Oil

No. and Description of Boilers

Two single ended multitubular return tube marine

Working Pressure

180 lb/sq in

Tested by hydraulic pressure to

320 lb/sq in

Date of test

15/3/46

No. of Certificate

4632

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

-

No. and Description of safety valves to each boiler

Two Imp. high lift

Area of each set of valves per boiler {
per Rule
as fitted

4.96 sq ft

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

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

No

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-0"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

13'-3 1/4"

Length

11'-4 24/32"

Shell plates: Material

Steel

Tensile strength

29/33

Thickness

13/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

DR lap

long. seams

T.R.D.B.P.

Diameter of rivet holes in

circ. seams

13/16"

Pitch of rivets

3.59

8 3/16"

Percentage of strength of circ. end seams

plate

66.9

rivets

44.4

Percentage of strength of circ. intermediate seam

plate

85.5

rivets

91.85

Percentage of strength of longitudinal joint

plate

85.5

rivets

91.85

Thickness of butt straps

outer

1"

No. and Description of Furnaces in each Boiler

Three Corrugated (beigher)

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-1 1/4"

Length of plain part

top

bottom

Thickness of plates

crown

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

15/32"

Pitch of stays

19'-14 1/2"

How are stays secured

Leakable nuts

Tube plates: Material

front

back

Steel

Tensile strength

26/30

Thickness

13/16"

11/16"

Mean pitch of stay tubes in nests

11 1/4" x 4 1/2"

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

8 3/8" x 13/16" (2)

Length as per Rule

2'-8"

Distance apart

10"

No. and pitch of stays

in each

2 @ 10"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

2 1/32"

Back

11/16"

Top

23/32"

Bottom

21/32"

Pitch of stays to ditto: Sides

8" x 10"

Back

10 1/2" x 4 1/2"

Top

10" x 10"

Are stays fitted with nuts or riveted over

nuts on margin inside c.c.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

13/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

24/32"

Pitch of stays at wide water space

16" x 4 1/2"

Are stays fitted with nuts or riveted over

nuts on marginal stays

Main stays: Material

Steel

Tensile strength

28/32

Diameter: At body of stay,

2 7/8"

No. of threads per inch

6

Diameter: Over threads

Front end 2 5/16"

Screw stays: Material

Steel

Tensile strength

26/30

Diameter: At turned off part,

1 3/4"

No. of threads per inch

9

Diameter: Over threads

1 3/4"

No. of threads per inch

9



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Are the stays drilled at the outer ends no. ✓ Margin stays: Diameter { At turned off part. 1 1/8" x 2" or Over threads

No. of threads per inch 9. ✓

Tubes: Material S.D. Steel External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 9/16" 3/8" 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 1/2" x 16 1/2" Section of compensating ring 4 7/8" x 1" No. of rivets and diameter of rivet holes 36 @ 1 3/16" ✓

Outer row rivet pitch at ends 8 3/16" Depth of flange if manhole flanged 3 1/4" ✓ Steam Dome: Material _____

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,

GEORGE CLARK (1888) LTD.

Manufacturer.

Dates of Survey { During progress of work in shops - - } 7. Jan 29. 31. Feb. 1. 5. 13. 19. 25. 27. 1946 ✓ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) Yes. ✓

while building { During erection on board vessel - - } 6. 8. 13. 15. 27. 28. 29. April. 1. 2. 24. 26 Total No. of visits 18

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. Sld. Rpt. No. 34440.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under special in accordance with the approved plan specification & the rules of the Society. The material & workmanship are good.

On completion the boilers have been tested by hydraulic pressure of 320 lb. & found tight & sound at that pressure.

These boilers have been despatched to Harlepool for installation on board the vessel.

These boilers have now been satisfactorily fitted & secured on board

S.W. Boddy

Survey Fee ... £ 29 : 14 : - When applied for, 2 MAY 1946

Travelling Expenses (if any) £ 4 : 9 : - When received, 19

J. T. H. Law.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 17 JAN 1947

Assigned Sen F. E. Moly. rph.



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