

Rpt. 5a.
RECEIVED

27 SEP 1943

IN D.S.

REPORT ON BOILERS.

No. 13589

Received at London Office

4 SEP 1943

24 DEC 1943

Date of writing Report

When handed in at Local Office

13/10/43

22/9/1943

Port of Belfast.

No. in Surrender held at Reg. Book.

Belfast.

Date, First Survey

8 May 1943

Last Survey

27 July 1943

1943

(Number of Visits)

16

Gross 8228

Tons Net 4784

on the

M.V. "NERITINA"

Built at Glasgow.

By whom built

Harland & Wolff Ltd.

Yard No. 1174

When built 1943.

Engines made at Glasgow.

By whom made

Harland & Wolff Ltd

Engine No. 1174G

When made 1943.

Boilers made at Belfast.

By whom made

Harland & Wolff Ltd.

Boiler No. 1174G

When made 1943.

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel

Colvilles Ltd.

(Letter for Record

5.

Total Heating Surface of Boilers

4160 sq ft.

Is forced draught fitted

Yes.

Coal or Oil fired EXHST GAS.

No. and Description of Boilers

Two single ended multitubular

Working Pressure

180 lbs sq in

Tested by hydraulic pressure to

320 lbs sq in

Date of test

27.7.43

No. of Certificate

1243.

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 1/4 in. Double spring Improved High Lift.

Area of each set of valves per boiler

per Rule

3.33 sq ft.

as fitted

3.98 sq ft. x 2 = 7.96

Pressure to which they are adjusted

180 lbs.

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

well clear

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

well clear.

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

12'-9 3/32"

Length

12'-3"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

1 3/64"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

DR

long. seams

TR. DBS

Diameter of rivet holes in

circ. seams

1 3/32"

long. seams

1 3/32"

Pitch of rivets

3.04"

7 1/2"

Percentage of strength of circ. end seams

plate

64

rivets

47

Percentage of strength of circ. intermediate seam

plate

-

rivets

-

Percentage of strength of longitudinal joint

plate

85.4

rivets

89.2

combined

88.6.

Working pressure of shell by Rules. 180 lbs sq in

Thickness of butt straps

outer

13/16"

inner

15/16"

No. and Description of Furnaces in each Boiler

Two Corrugated "Union" Section.

Material

Steel.

Tensile strength

26-30 tons

Smallest outside diameter

3'-8 1/8"

Length of plain part

top

-

bottom

-

Thickness of plates

crown

9/16"

bottom

-

Description of longitudinal joint

Fire weld.

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

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/16"

Pitch of stays

various

How are stays secured

nuts and washers inside and outside.

Tube plates: Material

front

Steel

back

Steel.

Tensile strength

26-30 tons

26-30 tons.

Thickness

7/8"

13/16"

Mean pitch of stay tubes in nests

9.11"

Pitch across wide water spaces

14"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

9 3/4 x 2 x 7/8

Length as per Rule

35 1/4"

Distance apart

11"

No. and pitch of stays

in each

3 @ 8 3/4"

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons.

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 3/4 x 7 3/4"

Back

8 3/8 x 8 1/4"

Top

8 3/4 x 11"

Are stays fitted with nuts or riveted over all other riveted over

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Pitch of stays at wide water space

13"

Are stays fitted with nuts or riveted over

Riveted over.

Main stays: Material

Steel

Tensile strength

28-32 tons.

Diameter

At body of stay,

2 3/4"

or

Over threads

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26-30 tons.

Diameter

At turned off part,

1 1/2", 1 3/4", 2"

or

Over threads

No. of threads per inch

9.

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Are the stays drilled at the outer ends ho. Margin stays: Diameter { At turned off part, or Over threads 1 3/4

No. of threads per inch 9

Tubes: Material Nought Iron External diameter { Plain 2 3/4 Stay 2 3/4 Thickness { 9 LSG 1/4 5/16 3/8 No. of threads per inch 9

Pitch of tubes 3 7/8 x 4

Manhole compensation: Size of opening in shell plate 16 1/2 x 12 1/2 Section of compensating ring 2 [10 x 7/8 + (1 x 1)] No. of rivets and diameter of rivet holes 28 @ 1 1/32

Outer row rivet pitch at ends 9 3/4 Depth of flange if manhole flanged 3 3/8 in plate 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

FOR HARLAND AND WOLFF, LIMITED.

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - May 8, 19, 18 June 3, 15, 18, 25, 28 July 3, 29

while building { During erection on board vessel - - 1943 Oct 21, 22, 27 Nov 19, 29 Dec 1

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

Total No. of visits 16

Is this Boiler a duplicate of a previous case yes. If so, state Vessel's name and Report No. "HARICA" Report No 13536. year No 1173

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey in accordance with the Society's rules and approved plans. The materials and workmanship are good.

The boilers have been despatched to Glasgow for installation on board the vessel. These boilers have been properly fitted on board. Safety valves adjusted under steam to 180 lbs per sq inch. and found satisfactory. They were examined under full working conditions with satisfactory results.

Safety valve compression washers

Port Boilers. P. S. 13/32 15/32

Starboard Boilers. P. S. 1/2 9/16

G. E. Munchel

Survey Fee ... £ 26 : 10 : -

Travelling Expenses (if any) £ : : -

When applied for, 22/11 19 43

When received, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 21 DEC 1943

Assigned



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