

## REPORT ON BOILERS.

No. 13048

25 AUG 1941

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of

Belfast.

No. in Reg. Book

Survey held at

Belfast.

Date, First Survey

Visits included in r.e. mch. report.

Last Survey

19

on the

Steel Sc.

"CONSLIP"

(Number of Visits)

Gross 811.39

Net 301.14.

Built at

Belfast

By whom built

Messrs. Haland, Wolff Ltd

Yard No.

1105

When built

1941

Engines made at

Belfast

By whom made

Haland, Wolff Ltd

Engine No.

1102

When made

1941

Boilers made at

Belfast

By whom made

Haland, Wolff Ltd

Boiler No.

1102

When made

1941

Nominal Horse Power

399

Owners

The Admiralty.

Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Messrs. Colvilles Ltd

(Letter for Record)

S

Total Heating Surface of Boilers

6852 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

Two - Single Ended "Horden-Johnson" Type

Working Pressure

225 lb/sq. in.

Tested by hydraulic pressure to

388 lb/sq. in.

Date of test

15.4.41

No. of Certificate

1135 FORD BUR

1136 A.P. BUR

each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two - Improved High Lift 2 3/4" dia

Area of each set of valves per boiler

per Rule

8.92 sq. in.

as fitted

11.88 sq. in.

Pressure to which they are adjusted

225 lb/sq. in.

Are they fitted with easing gear

Yes.

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

Smallest distance between boilers or uptakes and bunkers

9"

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

Yes.

Largest internal dia. of boilers

16'-6"

Length

7'-6" between tube plates

Shell plates: Material

Steel

Tensile strength

32/36 tons.

Thickness

1 1/2"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end D.R.L.

long. seams

TR DBS

Diameter of rivet holes in

circ. seams

1 1/2"

long. seams

1 9/16"

Pitch of rivets

3.917"

9.875"

Percentage of strength of circ. end seams

plate

61.55

rivets

43.4

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate

84.2

rivets

87.4

combined

85.9

Working pressure of shell by Rules: 228 lb/sq. in.

Thickness of butt straps

outer

1 3/16"

inner

1 5/16"

No. and Description of Furnaces in each Boiler

Three Corrugated "Deighton" Section

Material

Steel

Tensile strength

26/30 tons.

Smallest outside diameter

48 1/2"

Length of plain part

top

bottom

Thickness of plates

crown

3/4"

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 1/4"

Pitch of stays

17 1/2" x 18"

How are stays secured

Nuts and washers inside &amp; outside.

Tube plates: Material

front

Steel

back

Steel

Tensile strength

26/30 tons.

26/30 tons.

Thickness

1 3/32"

1 3/32"

Mean pitch of stay tubes in nests

8.69"

Pitch across wide water spaces

13 1/2"

Girders to combustion chamber tops: Material

Steel

Tensile strength

Depth and thickness of girder

at centre

Length as per Rule

Distance apart

No. and pitch of stays

in each

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons.

Thickness

1 1/32"

Lower back plate: Material

Steel

Tensile strength

26/30 tons.

Thickness

1 3/32"

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Main stays: Material

Steel

Tensile strength

28/32 tons.

Diameter

At body of stay,

or Over threads

3 1/4"

No. of threads per inch

6

crew stays: Material

Tensile strength

Diameter

At turned off part,

or Over threads

No. of threads per inch



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W1024-0217



Are the stays drilled at the outer ends

Margin stays: Diameter { At turned off part, or Over threads

No. of threads per inch

SMOKE Tubes: Material

Steel

External diameter

Plain Stay

2 1/2" 2 1/2"

Thickness

9 W.G. 5/16", 3/8", 1/2"

No. of threads per inch

9

Manhole compensation: Size of opening in

Pitch of tubes

3 3/4" x 3 3/4"

shell plate

Section of compensating ring

No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends

Depth of flange if manhole flanged

3 3/8" in back end plate 3 5/8" in front end plate

Steam Dome: Material

Tensile strength

WATER TUBES Diameter of rivet holes

Material - SD Steel

Thickness of shell 28 lbs/sq. in. max. Pitch of rivets

Description of longitudinal joint 3" 9/10 x 8 W.G. THICK

NUMBER OF TUBES - 53

Percentage of strength of joint

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

Yes

The foregoing is a correct description,

HABLAND AND WOLFF, LIMITED, Manufacturer.

Dates of Survey { During progress of work in shops - - } while building { During erection on board vessel - - }

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

Total No. of visits

Is this Boiler a duplicate of a previous case

Yes

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

"VERVAIN" BEL RPT No.

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

under Special Survey in accordance with the Rules & approved plan.

The materials and workmanship are good.

These boilers have been efficiently installed onboard the vessel, all safety valves adjusted under steam and accumulation tests carried out with satisfactory results.

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

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

Green S. Thomas

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 29 AUG 1941

Assigned

See Bel. 2E 13048



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