

REPORT ON BOILERS.

No. 13221

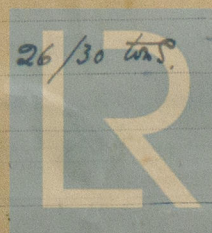
Received at London Office

20 APR 1942

Date of writing Report 17th Apr. 1942 When handed in at Local Office 17th Apr. 1942 Port of Belfast
Belfast included in 7.2. mch
 No. in Reg. Book. 56 LB. 10 Survey held at Belfast Date, First Survey 11th Apr. 1942
 on the M.V. "DINSDALE" (Number of Visits 8213)
 Tons 4780
 Built at Belfast By whom built Messrs. Haland, Wolff Ltd Yard No. 1078 When built 1942
 Engines made at Belfast By whom made Haland, Wolff Ltd. Engine No. 1078 When made 1942
 Boilers made at Belfast By whom made Haland, Wolff Ltd Boiler No. 1078 When made 1942
 Nominal Horse Power 502. Owners THE ADMIRALTY Port belonging to LONDON

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Messrs. Colville, Ltd (Letter for Record S)
 Total Heating Surface of Boilers 3836 sq. ft. Is forced draught fitted Yes Coal or Oil fired or Exh. Gas Oil
 No. and Description of Boilers Two Single Ended Return Tube Working Pressure 150 lbs/sq. in.
 Tested by hydraulic pressure to 275 lbs/sq. in. Date of test 11.10.41 No. of Certificate 1150 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 - 2 1/2" dia Improved High Lift.
 Area of each set of valves per boiler per Rule 7.26 sq. ft. Pressure to which they are adjusted 150 lbs/sq. in. Are they fitted with easing gear Yes
as fitted 7.96 sq. ft.
 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 Boiler flat. Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 12'-6" Length 11'-0" Shell plates: Material Steel Tensile strength 29/33 tons
 Thickness 7/8" Are the shell plates welded or flanged No. Description of riveting: circ. seams DR.
 long. seams TR DBS. Diameter of rivet holes in circ. seams 1 3/32" long. seams 1 1/32" Pitch of rivets 3.038"
 Percentage of strength of circ. end seams plate 56.1 rivets 56.1 Percentage of strength of circ. intermediate seam plate 84.6 rivets 106.7
 Percentage of strength of longitudinal joint combined 90.5 Working pressure of shell by Rules 156.6 lbs.
 Thickness of butt straps outer 1 1/16" inner 1 3/16" No. and Description of Furnaces in each Boiler Two Corrugated "Daighton" Section
 Material Steel Tensile strength 26/30 tons Smallest outside diameter 42"
 Length of plain part top bottom Thickness of plates crown 1/2" bottom 1/2" Description of longitudinal joint fine 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 5/16" Pitch of stays various
 How are stays secured Nuts and washers inside & outside.
 Tube plates: Material front Steel back Steel Tensile strength 26/30 tons 26/30 tons Thickness 7/8" 1 3/16"
 Mean pitch of stay tubes in nests 8.54" Pitch across wide water spaces 13 1/2"
 Girders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder
 at centre 8 1/4" x (2 x 3/4)" Length as per Rule 29.94" Distance apart 11" No. and pitch of stays
 in each 30 7 1/4" 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 1/4" x 9 3/4" Back 8" x 9 1/2" Top 7 1/4" x 11" Are stays fitted with nuts or riveted over Magnias, 9 inch stays riveted 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 1 5/16"
 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 1/2" Over threads 2 1/2" No. of threads per inch 6
 Screw stays: Material Steel Tensile strength 26/30 tons
 Diameter At turned off part, 1 1/2" Over threads 1 1/2" No. of threads per inch 9



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Foundation

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Are the stays drilled at the outer ends

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

No. of threads per inch

Tubes: Material

Weldless Steel

External diameter

Plain

2 1/2"

Stay

Thickness

10 LSG.

No. of threads per inch

9

Pitch of tubes

3 1/2" x 3 5/8"

Manhole compensation: Size of opening in

shell plate

16 1/2" x 12 1/2"

Section of compensating ring

2 [10 x 3/4" + 1 x 1"]

No. of rivets and diameter of rivet holes

28 @ 1 1/2"

Outer row rivet pitch at ends

9"

Depth of flange if manhole flanged

3 3/8" in flange 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

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

For HARLAND & WOLFE, LIMITED.

The foregoing is a correct description,

Manufacturer.

Dates

During progress of

of Survey

work in shops - -

while

During erection on

building

board vessel - -

Are the approved plans of boiler and superheater forwarded herewith

22.2.40

(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.

"Empire Diamond" Bel Rpt 2°/1311

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

These boilers have been constructed

under Special Survey in accordance with the Rules and approved plan

The materials and workmanship are good.

The boilers were subsequently fitted on board the vessel in an efficient manner, the safety valves were adjusted under steam and a satisfactory accumulation test carried out. The starboard boiler is adapted for oil or exhaust gas firing and the port boiler for oil firing only, and the plant has been found satisfactory under working conditions.

In our opinion the boilers are eligible to receive the notation of 2 D.B. 150 lbs.

Survey Fee Recd. Mch. Rpt.

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Rev. S. Thomas John McGee

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 1 MAY 1942

Assigned

See Bel. JE 13221



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