

Rpt. 5b.

27 JAN 1930

Bel 10,302

No. 16021

REPORT ON BOILERS.

Received at London Office 21 SEP 1928

Date of writing Report 20.9.1928 When handed in at Local Office 20.9.1928 Port of Grimsby
No. in Survey held at Lincoln Date, First Survey 13th Jan 1928 Last Survey 12th Sept. 1928
Reg. Book 23280 on the STEEL TWIN SC. HIGHLAND HOPE (Number of Visits 19) Gross Tons Net

Built at Belfast By whom built Harland & Wolff Ltd Yard No. 8136 When built 1930
Engines made at Belfast By whom made Harland & Wolff Ltd Engine No. 8136 When made 1930
Boilers made at Lincoln By whom made Babcock & Wilcox Ltd Boiler No. 73/4552 When made 1930
Owners H. W. Nelson Ltd Port belonging to Belfast

VERTICAL DONKEY BOILER.

UPPER DECK IN

Made at Lincoln By whom made Babcock & Wilcox Ltd Boiler No. 73/4552 When made 1928 Where fixed MOTOR ROOM

Manufacturers of Steel Parkgate S. S. Co.

Total Heating Surface of Boiler 600 sq ft Is forced draught fitted ☒ Coal or Oil fired ☒ waste heat

No. and Description of Boilers One, "Clarkson" Thimble Tube type Working pressure 100 lb.

Tested by hydraulic pressure to 200 lb Date of test 6th September 1928 No. of Certificate 240

Area of Firegrate in each Boiler none No. and Description of safety valves to each boiler Two, 2 1/2" dia, Spring loaded

Area of each set of valves per boiler { per rule 7.8 as fitted 9.81 Pressure to which they are adjusted See over Are they fitted with easing gear ☒

State whether steam from main boilers can enter the donkey boiler ☒ Smallest distance between boiler or uptake and bunkers

or woodwork ☒ Is oil fuel carried in the double bottom under boiler ☒ Smallest distance between base of boiler and tank top plating

☒ Is the base of the boiler insulated ☒ Largest internal dia. of boiler 6'0" Height 12'6 1/2"

Shell plates: Material S.M. Steel Tensile strength 28/32 T Thickness 1/2"

Are the shell plates welded or flanged ☒ Description of riveting: circ. seams { end S.T. bot. d.r. inter. d.r. long. seams D.R.B. straps

Dia. of rivet holes in { circ. seams 7/8" Pitch of rivets { 2" 3.134 Percentage of strength of circ. seams { plate 56 rivets 43 of Longitudinal joint { plate 73 rivets 102 combined 95

Working pressure of shell by rules 144 lb Thickness of butt straps { outer 7/16" inner 7/16"

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material S.M. Steel

Tensile strength 26/30 T Thickness 11/16" Radius ☒ Working pressure by rules 135 lb.

Description of Furnace: Plain, spherical, or dished crown ☒ Material S.M. Steel Tensile strength 26/30 T

Thickness 1 1/32" External diameter { top 5'2 1/8" Length as per rule 9'3 1/2" Working pressure by rules 120 lb

Pitch of support stays circumferentially ☒ and vertically ☒ Are stays fitted with nuts or riveted over ☒

Diameter of stays over thread ☒ Radius of spherical or dished furnace crown ☒ Working pressure by rule ☒

Thickness of Ogee Ring ☒ Diameter as per rule { D d Working pressure by rule ☒

Combustion Chamber: Material ☒ Tensile strength ☒ Thickness of top plate ☒

Radius if dished ☒ Working pressure by rule ☒ Thickness of back plate ☒ Diameter if circular ☒

Length as per rule ☒ Pitch of stays ☒ Are stays fitted with nuts or riveted over ☒

Diameter of stays over thread ☒ Working pressure of back plate by rules ☒

Tube Plates: Material { front ☒ back ☒ Tensile strength { ☒ Thickness { ☒ Mean pitch of stay tubes in nests ☒

If comprising shell, Dia. as per rule { front ☒ back ☒ Pitch in outer vertical rows { ☒ Dia. of tube holes FRONT { stay ☒ plain ☒ BACK { stay ☒ plain ☒

Is each alternate tube in outer vertical rows a stay tube ☒ Working pressure by rules { front ☒ back ☒

Girders to combustion chamber tops: Material ☒ Tensile strength ☒

Depth and thickness of girder at centre ☒ Length as per rule ☒

Distance apart ☒ No. and pitch of stays in each ☒ Working pressure by rule ☒

Crown stays: Material ☒ Tensile strength ☒ Diameter ☒ { at body of stay, or over threads ☒

No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒

Screw stays: Material ☒ Tensile strength ☒ Diameter ☒ { at turned off part, or over threads ☒ No. of threads per inch ☒

Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒

Tubes: Material S. D. Steel External diameter ☒ { plain 3 1/4 to 2 1/4 stay ☒ Thickness ☒ 9 Bar. 9

No. of threads per inch ☒ Pitch of tubes ☒ Working pressure by rules ☒

Manhole Compensation: Size of opening in 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 ☒

Uptake: External diameter 3' 5 1/2" Thickness of uptake plate ☒

Cross Tubes: No. ☒ External diameters ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,

W. A. Bick

Manufacturer.

Annual Survey Request.

Dates of Survey while building { During progress of work in shops - 1928 Jan 19, 26 Mar 7 Apr 5, 13, 17 May 1, 10, 16, 21, 31 Jun 13 Is the approved plan of boiler forwarded herewith No 6/2/28.
 { During erection on board vessel - Jul 22, 29, Jul 13, 23 Aug 29 Sep 6 '2 (If not state date of approval.)
 Total No. of visits 19.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey and in accordance with the Rules and approved plan. The materials and workmanship are good. (See Encls 1st Entry Rpt No 15842)

This boiler has been fastened efficiently on a flat on an upper deck at the forward end of the motor room. The safety valves were adjusted under steam, accumulation tests were made under waste heat and oil-burning conditions. Working pressure 100 lbs. casing gas filled.

R. Lee Anness.

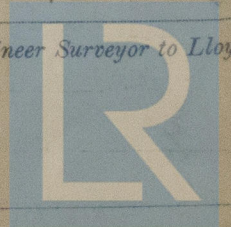
Belfast 1.30

Survey Fee £ 4 : 4 :- When applied for, 11. 9 1928
 Travelling Expenses (if any) £ 1 : 8/6 :- When received, 3. 1. 1929 See London Jan 4.

W. G. McKinlay

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 31 JAN 1920
 Assigned See Jls. Rpt 48900



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