

10 MAR 1930 Bel 10,330

Rpt. 5b.

REPORT ON BOILERS.

No. 16167

Received at London Office 18 DEC 1928

Date of writing Report 17.12.1928 When handed in at Local Office 17.12.1928 Port of Trinob.

No. in Reg. Book 4059 Survey held at Lincoln Date, First Survey 19.9.28 Last Survey 7.12.1928

on the STEEL TWIN SC. Ulster Prince (Number of Visits 11) Tons {Gross Net

Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 697 When built 1930

Engines made at Belfast By whom made Harland & Wolff, Ltd. Engine No. 697 When made 1930

Boilers made at Lincoln By whom made Babcock & Wilcox Boiler No. 73/4576 When made 1928

Owners Belfast Steam Ship Co. Ltd. Port belonging to Belfast

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Boiler No. 73/4576 When made 1928 Where fixed Upper deck of main motor room.

Manufacturers of Steel Portgalt & Co. & Steel Co. Scotland

Total Heating Surface of Boiler 580 sq. ft. Is forced draught fitted Coal or Oil fired Oil

No. and Description of Boilers one Clarkson type basketless boiler Working pressure 80 lbs.

Tested by hydraulic pressure to 160 lbs. Date of test 26th Nov. 1928 No. of Certificate 246

Area of Firegrate in each Boiler none No. and Description of safety valves to each boiler Two spring loaded

Area of each set of valves per boiler { per rule 8.4 sq. in. as fitted 9.8 sq. in. Pressure to which they are adjusted 80 lbs. Are they fitted with easing gear Yes

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 no Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated Largest internal dia. of boiler 5'-6" Height 16'-6"

Shell plates: Material 1/4 steel Tensile strength 28/32 T Thickness 3/8"

Are the shell plates welded or flanged Description of riveting: circ. seams S.P. Lap long. seams D.R. Lap

Dia. of rivet holes in { circ. seams 13/16 Pitch of rivets { 1 7/8" & 2 1/8" Percentage of strength of circ. seams { plate 57% rivets 52% of Longitudinal joint { plate 69% rivets 87% combined 82%

Working pressure of shell by rules 102 lbs. Thickness of butt straps { outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material 1/4 steel

Tensile strength 26/30 Thickness 9/16 Radius - Working pressure by rules 144 lbs.

Description of Furnace: Plain, spherical, or dished crown dished Material 1/4 steel Tensile strength 26/30 T

Thickness 7/8" External diameter { top 4'-7 3/4" bottom 4'-7 3/4" Length as per rule 7'-6 1/2" Working pressure by rules 161 lbs.

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 4'-0" Working pressure by rule 103 lbs.

Thickness of Ogee Ring 7/8" Diameter as per rule { D 5'-5 1/4" A 5'-7 3/4" Working pressure by rule 193 lbs.

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 -

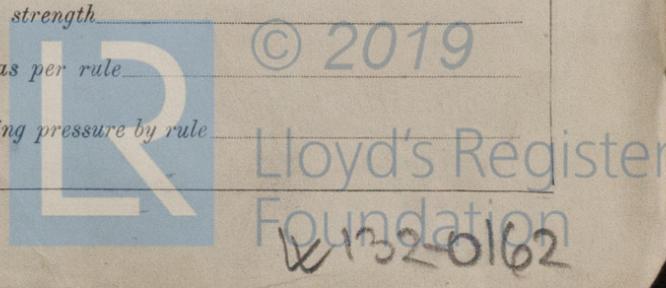
If comprising shell, Dia. as per rule { front - back - Pitch in outer vertical rows { - Dia. of tube holes FRONT { stay - plain - BACK { stay - plain -

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 _____ External diameter { plain _____ stay _____ } Thickness { _____ }
 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 2' 11 3/8" Thickness of uptake plate 1 1/16"
Cross Tubes: No. _____ External diameters { _____ } Thickness of plates _____

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

The foregoing is a correct description,
BABCOCK & WILCOX, LTD.
 J. G. Lewis
 Manufacturer.

Annual Survey Request

Dates of Survey { During progress of work in shops - 1928 - Sep 19 Oct 10 15 19 30 Nov 8 14 20 22 Dec 5 7 } Is the approved plan of boiler forwarded herewith (If not state date of approval.)
 { During erection on board vessel - - - - - } Total No. of visits 11

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. This boiler has been efficiently installed and fastened on an upper deck platform of the motor room. The safety valves were adjusted under steam. Accumulation tests under oil-burning and waste gas firing conditions verified that the pressure accumulation did not exceed 8 lbs. Gauging gear is fitted.*
 R. Lee Armer
 Belfast

Survey Fee ... £ 4: 4: 7 When applied for, 3/12/28
 Travelling Expenses (if any) £ : 15/6 When received, 12. 3. 29 See Sec's dt.

W. G. McQuinlan
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 18 MAR 1930
 Assigned See Bel. 2E 10330

