

Rpt. 5b.

## REPORT ON BOILERS.

No. 17069

23 MAR 1931

Re 10.590

Received at London Office

20 AUG 1930

Date of writing Report 18. 8. 1930 When handed in at Local Office 19. 8. 1930 Port of Grimsby

No. in Survey held at Lincoln Date, First Survey 25-9-29 Last Survey 14-8-1930

Reg. Book 92260 on the STEEL QUAD. SC. REINA DEL PACIFICO (Number of Visits 24) Gross Tons Net

Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 852 When built 1931  
 Engines made at Belfast By whom made Harland & Wolff Ltd. Engine No. 852 When made 1931  
 Boilers made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/4602-3 When made 1930  
 Owners Pacific Steam Navigation Co. Port belonging to Liverpool

## VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock &amp; Wilcox Ltd. Boiler No. 73/4602-3 When made 1930 Where fixed upper deck of main motor room.

Manufacturers of Steel Parkgate 10 S. Co. Ltd.

Total Heating Surface of Boilers each 590 sq. ft. Is forced draught fitted Coal or Oil fired 2 changes

No. and Description of Boilers Two, Clarkson Patent Waste Heat Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test 14.8.30. No. of Certificate 295-6

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two spring loaded 2 1/2" dia each

Area of each set of valves per boiler { per rule 7.7 sq. ft. as fitted 9.81 sq. ft. Pressure to which they are adjusted 100 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 Yes Largest internal dia. of boiler 6'-2" Height 12'-5"

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

Are the shell plates welded or flanged No Description of riveting: circ. seams { outer S. K. Lap inner D. R. Lap long. seams D. R. D. R. S.

Dia. of rivet holes in { circ. seams 7/8" long. seams 7/8" Pitch of rivets { 2" 2 5/8" 3 1/4" Percentage of strength of circ. seams { plate 58+66 rivets 49 of Longitudinal joint { plate 73 rivets 114 combined.

Working pressure of shell by rules 141 lbs. Thickness of butt straps { outer 7/16" inner 7/16"

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat flat Material S. K. steel

Tensile strength 26/30 T. Thickness 1/16" Radius Working pressure by rules 180 lbs.

Description of Furnace: Plain, spherical, or dished crown dished Material S. K. steel Tensile strength 26/30 T

Thickness 1 1/16" External diameter { top 5'-4 1/8" bottom 5'-4 1/8" Length as per rule 9'-0" Working pressure by rules 102 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 5'-0" Working pressure by rule 102 lbs.

Thickness of Ogee Ring 1" Diameter as per rule { D 6'-2" a 5'-4 1/8" Working pressure by rule 184 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



© 2018

Lloyd's Register Foundation



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 stay ☒ 3 1/4" ☒ Thickness ☒ 6 Bwg. ☒  
 No. of threads per inch ☒ Pitch of tubes ☒ Working pressure by rules ☒  
 Manhole Compensation: Size of opening in shell plate 1-9 x 1-4 1/2. Section of compensating ring 1 x 4 1/4. No. of rivets and diameter  
 of rivet holes 52 - 1/8 DIA. Outer row rivet pitch at ends 2-9 3/8. Depth of flange if manhole flanged ☒  
 Uptake: External diameter 3'-5 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 22 inclusive for boilers been complied with ☒

The foregoing is a correct description,  
 Babcock & Wilcox, Lincoln  
 Manufacturer.

Annual Survey Request.

1929 Sep 25-28 Jan 29, Mar 12, 13, 24 Apr 9 May 21 Jun 3.  
 Dates of Survey ☒ During progress of work in shops - ☒ Is the approved plan of boiler forwarded herewith ☒  
 while building ☒ During erection on board vessel - ☒ (If not state date of approval.)  
 Total No. of visits 24

Is this Boiler a duplicate of a previous case. ☒ If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under special survey and in accordance with the Rules and approved plan as per Secty's letter 25/1/30.  
 The materials and workmanship are good

These boilers have been efficiently fastened on an upper deck at the forward end of the main motor room. The safety valves are adjusted under steam to their working pressure. Accumulation tank made under waste heat gas and fairly at full running conditions showed a rise of pressure under oil fuel of not more than 5 lbs.

R Lee Amess  
 Belfast.

Survey Fee ... £8 : 8 : 0 When applied for. 19. 8. 10 30  
 Travelling Expenses (if any) £8 : 5 : 8 When received. 14. 10. 19 30 ELL

W. G. H. Kinlay & J. H. Smith.  
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned

TUE. 24 MAR 1931

See J. E. Rpt.