

1 JUL 1930

Bel 10.409

REPORT ON BOILERS

No. 16168

18 DEC 1928

Date of writing Report 17.12.28 When handed in at Local Office 17.12.28 Port of Grimsby
 No. in Survey held at Lincoln Date, First Survey 19.9.28 Last Survey 7.12.1928
 Reg. Book 16189 on the TWIN SC. "BRITANNIC" (Number of Visits 11)
 Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 807 When built 1930
 Engines made at Belfast By whom made Harland & Wolff Ltd. Engine No. 807 When made 1930
 Boilers made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/4589 When made 1928
 Owners Oceanic Steam Navigation Co. Ltd. Port belonging to Liverpool

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/4589 When made 1928 Where fixed
 Manufacturers of Steel Steel Co. of Scotland & Glasgow 1928
 Total Heating Surface of Boiler 250 sq. ft. Is forced draught fitted
 No. and Description of Boilers One blacken type waste heat boiler Coal or Oil fired Salmon
 Tested by hydraulic pressure to 200 lb. Date of test 26 Nov. 1928 Working pressure 100 lb.
 Area of Firegrate in each Boiler None No. and Description of safety valves to each boiler not supplied
 Area of each set of valves per boiler { per rule 14.15 Pressure to which they are adjusted See back of rpt Are they fitted with easing gear Yes
 State whether steam from main boilers can enter the donkey boiler See back of rpt 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 Yes Largest internal dia. of boiler 4'-0" Height 7'-9 3/8"
 Shell plates: Material S.H. steel Tensile strength 28/32 T. Thickness 7/16"
 Are the shell plates welded or flanged Yes Description of riveting: circ. seams { end S.R. Lap long. seams D.R. Lap
 Dia. of rivet holes in { circ. seams 13/16" Pitch of rivets 1 1/2" x 2.59" Percentage of strength of circ. seams { plate 57.26% of Longitudinal joint { plate 69%
 { long. seams 13/16" { rivets 52.675% { rivets 74% { combined 75.0%
 Working pressure of shell by rules 167 lb. Thickness of butt straps { outer 1/2" inner 1/4"
 Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material S.H. steel
 Tensile strength 26/30 T. Thickness 9/16" Radius 3'-0 3/4" Working pressure by rules 200 lb.
 Description of Furnace: Plain, spherical, or dished crown dished Material S.H. steel Tensile strength 26/30 T.
 Thickness 7/16" External diameter { top 3'-2" Length as per rule 4'-7" Working pressure by rules 202 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 112 lb.
 Thickness of Ogee Ring 7/8" Diameter as per rule { D 4'-0" Working pressure by rule 213 lb.
 Combustion Chamber: Material S.H. steel Tensile strength 26/30 T. 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 S.H. steel Tensile strength { Thickness { Mean pitch of stay tubes in nests
 { back S.H. steel { front 1 1/2" Pitch in outer vertical rows { Dia. of tube holes FRONT { stay 1 1/2" BACK { stay 1 1/2"
 { back 1 1/2" { plain 1 1/2" { plain 1 1/2"
 Girders to combustion chamber tops: Material S.H. steel Working pressure by rules { front 112 lb. back 112 lb.
 Depth and thickness of girder at centre Tensile strength
 Distance apart Length as per rule 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 1'-9 1/8" Thickness of uptake plate 9/16"
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.

W. Lewis

Manufacturer.

Annual Survey Request.

Dates of Survey { During progress of work in shops - - 1928: Sep 19 Oct 10 15 30 Nov 14 16 20 26 28 Dec 5 7 Is the approved plan of boiler forwarded herewith Yes
 while building { During erection on board vessel - - _____ (If not state date of approval.)
 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.*

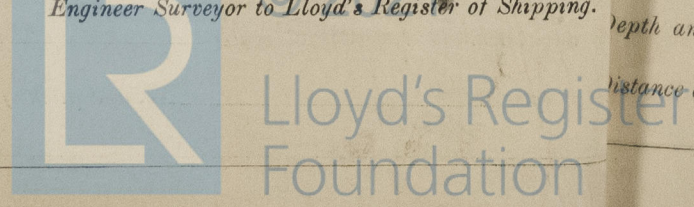
This boiler has been efficiently fastened on an upper deck platform in the Auxiliary Motor room. It is fitted with 2-3" dia. spring-loaded safety valves and easing gear. The safety valves have been adjusted under steam to 100 lbs. and showed an accumulation of 2 lbs. pressure when heated by the exhaust gases from two cylinder generator engines.

*R. Lee Amess
Belfast.*

Survey Fee ... £ 4: 4: 7 When applied for, 3/12/28
 Travelling Expenses (if any) £ 15/8 When received, 12-3-1929 *See Sec's Lt.*

Committee's Minute FRI, 11 JUL 1930
 Assigned *See Bel. S. E. app. No 10409*

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



Assigned