

REPORT ON BOILERS.

No. 51824

7 OCT 1931

Received at London Office

Survey Report 19 29.9.31 When handed in at Local Office 29.9.31 Port of Glasgow
 Survey held at Glasgow Date, First Survey 1-10-30 Last Survey 25th Sept. 1931
 on the Steel Twin Screw Steamer "Corfu" (Number of Visits 144) Gross 14251 Tons Net 7440
 Built at Glasgow By whom built A. Stephen Sons Ltd Yard No. 534 When built 1931
 Made at Glasgow By whom made A. Stephen Sons Ltd Engine No. 534 When made 1931
 Made at do. By whom made do. Boiler No. 534 When made 1931
 Horse Power 2997 Owners P & O. Steam Navigation Co. Port belonging to London

TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland (Letter for Record S)
 Heating Surface of Boilers 5616 sq ft Is forced draught fitted Yes Coal or Oil fired oil
 Description of Boilers 2 Single Ended Return Tube Working Pressure 230 lbs
 Hydraulic pressure to 395 lbs Date of test 20.2.31 No. of Certificate 18924 Can each boiler be worked separately Yes
 Grate in each Boiler 61.2 sq ft No. and Description of safety valves to each boiler 2 Improved Lift
 Each set of valves per boiler { per Rule 8.5 sq ft as fitted 9.8 sq ft Pressure to which they are adjusted 230 lbs Are they fitted with easing gear Yes
 Donkey boilers, state whether steam from main boilers can enter the donkey boiler No
 Distance between boilers or uptakes and bunkers or woodwork Well clear Is oil fuel carried in the double bottom under boilers Yes
 Distance between shell of boiler and tank top plating 2'-2" Is the bottom of the boiler insulated Yes
 External dia. of boilers 15'-3" Length 11'-9" Shell plates: Material S Tensile strength 29-33 tons
 Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.B. overlap inter. " }
 Diameter of rivet holes in { circ. seams 1 11/16" long. seams 1 1/32" } Pitch of rivets { 4 1/16" }
 of strength of circ. end seams { plate 67 rivets 42.4 } Percentage of strength of circ. intermediate seam { plate 85.4 rivets 85.1 }
 of strength of longitudinal joint { rivets 85.1 combined 87.6 } Working pressure of shell by Rules 232
 No. and Description of Furnaces in each Boiler 3 Morrison
 Tensile strength 26-30 tons Smallest outside diameter 45 31/32"
 Thickness of plates { crown 47/64" bottom " } Description of longitudinal joint Weld
 Working pressure of furnace by Rules 235
 in steam space: Material S Tensile strength 26-30 tons Thickness 1 3/8" Pitch of stays 21" x 7 1/2"
 stays secured Nuts inside + outside Working pressure by Rules 238
 Material { front S back S } Tensile strength { 26-30 tons } Thickness { 1 5/16" }
 of stay tubes in nests 9.06" Pitch across wide water spaces 13 1/2" Working pressure { front 232 back 362 }
 combustion chamber tops: Material S Tensile strength 28-32 tons Depth and thickness of girder 9 1/2" x 1 9/16"
 Length as per Rule 2-8 5/8" Distance apart 8 3/4" No. and pitch of stays 3 @ 8"
 Working pressure by Rules 246 Combustion chamber plates: Material S
 Thickness: Sides 43/64" Back 43/64" Top 11/16" Bottom 24/32"
 Sides 8 1/4" x 8" Back 8 1/4" x 8" Top 8 3/4" x 8" Are stays fitted with nuts or riveted over Nuts
 pressure by Rules 238 Front plate at bottom: Material S Tensile strength 26-30 tons
 Lower back plate: Material S Tensile strength 26-30 tons Thickness 29/32"
 stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over Nuts
 pressure 234 Main stays: Material S Tensile strength 28-32 tons
 of body of stay, or lower threads 3 3/8" No. of threads per inch 6 Area supported by each stay 367.5 sq in
 pressure by Rules 238 Screw stays: Material S Tensile strength 26-30 tons
 of turned off part, or lower threads 1 5/8" + 1 3/4" No. of threads per inch 9 Area supported by each stay 66 sq in

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Lloyd's Register Foundation

Working pressure by Rules **231** Are the stays drilled at the outer ends **No.** Margin stays: Diameter ^{At turned off part,} **1 1/2" x 2 1/2"**
 No. of threads per inch **9** Area supported by each stay **84"** Working pressure by Rules **245**
 Tubes: Material **Lap Wadded Iron** External diameter ^{Plain} **2 1/2"** Thickness ^{9 W.G.} **5/16" 3/8" 1/2"** No. of threads per inch **9**
 Pitch of tubes **3 5/8" x 3 5/8"** Working pressure by Rules **230** Manhole compensation: Size of opening in shell plate **20 1/2" x 16 1/2"** Section of compensating ring **28" x 1 1/4"** No. of rivets and diameter of rivet holes **36 @ 1 1/2"**
 Outer row rivet pitch at ends **10 1/2"** Depth of flange if manhole flanged **3 7/8"** 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} Rivets
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays
 Inner radius of crown Working pressure by Rules
 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 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 Working pressure as per Rules
 Pressure to which the safety valves are adjusted Hydraulic test pressure tubes 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

The foregoing is a correct description, **ALEXANDER STEPHEN & SONS** Manufacturer.

Dates of Survey while building ^{During progress of work in shops - - -} ^{During erection on board vessel - - -}

SEE ACCOMPANYING MACHINERY REPORT.

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

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. The materials and workmanship are good they have been placed on board and efficiently steamed in position. The safety valves have been adjusted and the tubes examined under steam and found in order.

29/9/31

Survey Fee ... £
 Travelling Expenses (if any) ... £
 When applied for, 19
 When received, 19

John B. Muir
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 6 - OCT 1931**

Assigned SEE ACCOMPANYING MACHINERY REPORT.

OCT 30 1931

TUE. 16 FEB. 1932



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