

Rpt. 5a.

Newcastle-on-Tyne 94861  
**REPORT ON BOILERS.**

No. 20300.

Received at London Office

20 JAN 1937

Date of writing Report 16.12.36 When handed in at Local Office 15.1.37 Port of Greenock  
No. in Survey held at Greenock Date, First Survey 3<sup>rd</sup> June 1936. Last Survey 24 January 1937  
Reg. Book. M/S "Regent Lion" (Number of Visits ✓) Gross 9551  
on the Greenock Tons Net 5794  
Master Built at Newcastle By whom built Swan Hunter & Wigham Yard No. 1521 When built 1937  
Engines made at Greenock By whom made John & Edward, Col. Engine No. 1104 When made 1937  
Boilers made at ditto By whom made ditto Boiler No. 1104 When made 1937  
Nominal Horse Power Owners C.T. Bourne, Col. Mgrs Port belonging to London

**MULTITUBULAR BOILERS ~~MAIN~~, AUXILIARY, ~~OR DONKEY~~.**

Manufacturers of Steel Steel Co of Scotland, Colville, Glasgow (Letter for Record \$)  
Total Heating Surface of Boilers 1494 ft Is forced draught fitted yes Coal or Oil fired oil  
No. and Description of Boilers one Single Ended Working Pressure 180  
Tested by hydraulic pressure to 320 Date of test 30.11.36 No. of Certificate 2079 Can each boiler be worked separately ✓  
Area of Firegrate in each Boiler Oil Fuel No. and Description of safety valves to each boiler 2 Backlund Improved High Lift  
Area of each set of valves per boiler per Rule 5.954 Pressure to which they are adjusted ✓ Are they fitted with easing gear ✓  
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓  
Smallest distance between boilers or uptakes and bunkers or woodwork ✓ Is oil fuel carried in the double bottom under boilers ✓  
Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated yes  
Largest internal dia. of boilers 13'-4 29/32" Length 11'-0" Shell plates: Material S Tensile strength 29.33  
Thickness 1 3/32" Are the shell plates welded or flanged ✓ Description of riveting: circ. seams end 3" 22 1/2"  
long. seams TR & DBS Diameter of rivet holes in 1 3/32" Pitch of rivets 4 7/16"  
Percentage of strength of circ. end seams plate 65.1 Percentage of strength of circ. intermediate seam ✓  
Percentage of strength of longitudinal joint plate 44.6 Working pressure of shell by Rules 184  
Thickness of butt straps outer 24/32" No. and Description of Furnaces in each Boiler 3 Deighton  
Material S Tensile strength 26-30 Smallest outside diameter 30 15/16"  
Length of plain part top 15/32" Thickness of plates bottom 15/32" Description of longitudinal joint weld  
Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 182  
End plates in steam space: Material S Tensile strength 26.30 Thickness 1 3/32" Pitch of stays 18 1/2" 18 1/2"  
How are stays secured DN = Washers Working pressure by Rules 182  
Tube plates: Material front S Tensile strength 26-30 Thickness 3/4"  
Mean pitch of stay tubes in nests 10 1/4" Pitch across wide water spaces 14" Working pressure front 184  
Girders to combustion chamber tops: Material S Tensile strength 29.33 Depth and thickness of girder back 204  
at centre 9 1/2" x 7 1/8 (2) Length as per Rule 37.4 Distance apart 8 1/2" No. and pitch of stays S  
in each 3 at 9" Working pressure by Rules 2045 Combustion chamber plates: Material S  
Tensile strength 26-30 Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 21/32"  
Pitch of stays to ditto: Sides 9 1/4" x 9" Back 8 1/2" x 9" Top 9 1/8" Are stays fitted with nuts or riveted over nuts  
Working pressure by Rules 180 Front plate at bottom: Material S Tensile strength 26.30 Thickness 25/32"  
Thickness 1" Lower back plate: Material S Tensile strength 26.30 Are stays fitted with nuts or riveted over nuts  
Pitch of stays at wide water space 13 3/4" Main stays: Material S Tensile strength 28-32  
Working Pressure 186 Diameter 2 3/4" No. of threads per inch 6 Area supported by each stay 332.25 1/2"  
Diameter At body of stay, 19.1 Screw stays: Material S Tensile strength 26-30  
Working pressure by Rules 15 7/8" No. of threads per inch 9 Area supported by each stay 82.25 1/2"  
Diameter At turned off part, 15 7/8"



Working pressure by Rules 198 Are the stays drilled at the outer ends ✓ Margin stays: Diameter { At turned off part, 1 3/4" Over threads, ✓  
No. of threads per inch 9 Area supported by each stay 100 H" Working pressure by Rules 181  
Tubes: Material Iron External diameter { Plain } 3" Thickness { 9 W.G. } No. of threads per inch 9  
Pitch of tubes 4 1/4 x 4 5/16" Working pressure by Rules 193 Manhole compensation: Size of opening in  
shell plate 16 1/2 x 20 1/2" Section of compensating ring 2-11 x 2-4 x 1 1/4" No. of rivets and diameter of rivet holes 38 at 1 5/16"  
Outer row rivet pitch at ends 9 Depth of flange if manhole flanged 3 1/4" 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,  
For JOHN G. KINCAID & CO. LIMITED.  
Director. Manufacturer.

Dates of Survey { During progress of work in shops - - }  
while building { During erection on board vessel - - }  
SEE MACHINERY REPORT. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes  
Total No. of visits

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has been built under Special Survey in accordance with the approved plan & the workmanship & material are of good quality. This Report accords with that of the Machinery

This Donkey Boiler has been satisfactorily fitted on the vessel. The Safety Valves were adjusted to 180 lbs/sq and the accumulation test was satisfactory.

A. Watt  
Newcastle on Tyne  
26/3/37

Survey Fee :  
Travelling Expenses (if any) :  
When applied for, 19  
When received, 19  
Gordon-Mitchell  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 JAN 1937 FRI 2 APR 1937  
Assigned SEE ACCOMPANYING MACHINERY REPORT.  
See Nwc 94861