

## REPORT ON BOILERS.

No. 19126

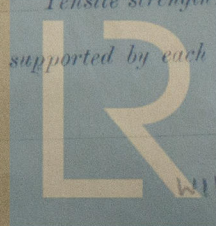
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26 NOV 1929

Date of writing Report 2.10.1929 When handed in at Local Office 22nd Nov. 1929 Port of Greenock  
No. in Survey held at Greenock Date, First Survey 16th October 1928 Last Survey 21st November 1929  
Reg. Book. T/S "Athebsultan" 11 (Number of Visits ☒) Gross 8882  
on the Tons Net 5259  
Master Built at P. Elangou By whom built W. Hamilton & Co Yard No. 408 When built 1929  
Engines made at Greenock By whom made John & Muccaid & Co Engine No. 1738 When made 1929  
Boilers made at ditto By whom made ditto Boiler No. 1738 When made 1929  
Nominal Horse Power Owners United Molasses Co & Co Port belonging to Liverpool

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel James Dunlop, Kirkcaldy, Glasgow, Greenock, Stirling (Letter for Record S)  
Total Heating Surface of Boilers 1220.95 sq 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 16/11/29 No. of Certificate 1883 Can each boiler be worked separately yes  
Area of Firegrate in each Boiler oil fuel No. and Description of safety valves to each boiler double spring  
Area of each set of valves per boiler { per Rule 9.38 as fitted 9.81 Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
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 5'-0" Is oil fuel carried in the double bottom under boilers no  
Smallest distance between shell of boiler and tank top plating 14 1/2" Is the bottom of the boiler insulated yes  
Largest internal dia. of boilers 11'-2 1/16" Length 10'-6" Shell plates: Material S Tensile strength 28.32  
Thickness 15/16" Are the shell plates welded or flanged ☒ Description of riveting: circ. seams { end DR inter. 3.85  
long. seams TR 00 BS Diameter of rivet holes in { circ. seams 1 1/8" long. seams 1" Pitch of rivets { 4"  
Percentage of strength of circ. end seams { plate 408 rivets 145.14 Percentage of strength of circ. intermediate seam { plate 85.4 rivets 92.4  
Percentage of strength of longitudinal joint { plate 92.4 rivets 89.98 combined 89.98 Working pressure of shell by Rules 182  
Thickness of butt straps { outer 23/32" inner 27/32" No. and Description of Furnaces in each Boiler 2 Deighton  
Material S Tensile strength 26.30 Smallest outside diameter 3'-0 15/16"  
Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 15/32" bottom 15/32" Description of longitudinal joint weld  
Dimensions of stiffening rings on furnace or c.e. bottom ✓ Working pressure of furnace by Rules 182  
End plates in steam space: Material S Tensile strength 26.30 Thickness 1 1/32" Pitch of stays 16 1/2" x 16 1/2"  
How are stays secured DN Working pressure by Rules 182  
Tube plates: Material { front S back S Tensile strength { 26.30 Thickness { 23/32"  
Mean pitch of stay tubes in nests 9.48" Pitch across wide water spaces 14" Working pressure { front 184 back 192  
Girders to combustion chamber tops: Material S Tensile strength 28.32 Depth and thickness of girder  
at centre 8 1/4" x 3 1/4" (2) Length as per Rule 2.462 Distance apart 8" No. and pitch of stays  
in each 2 at 10" Working pressure by Rules 183 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 8 x 10" Back 9 x 9 1/4" Top 8 x 10" 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 1" Lower back plate: Material S Tensile strength 26.30 Thickness 25/32"  
Pitch of stays at wide water space 13 3/4" Are stays fitted with nuts or riveted over Nuts  
Working Pressure 183 Main stays: Material S Tensile strength 26.32  
Diameter { At body of stay, 2 5/8" No. of threads per inch 6 Area supported by each stay 273-15 sq in  
Over threads ✓ Screw stays: Material S Tensile strength 26.30  
Working pressure by Rules 184 No. of threads per inch 9 Area supported by each stay 80 sq in  
Diameter { At turned off part, 1 5/8" No. of threads per inch 9 Area supported by each stay 80 sq in  
Over threads ✓

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Working pressure by Rules 190 Are the stays drilled at the outer ends 90 Margin stays: Diameter { At turned off part. 13 1/4" or Over threads ✓  
 No. of threads per inch 9 Area supported by each stay 103.5" Working pressure by Rules 214  
 Tubes: Material Iron External diameter { Plain } 3" Thickness { 9 WG 1 1/4 3/8 5/16 No. of threads per inch 9  
 Pitch of tubes 4 1/4 x 4 3/16 Working pressure by Rules 183 Manhole compensation: Size of opening in  
 shell plate 20 x 16 Section of compensating ring 2 5/8 x 1 1/2 x 3/4 x 1/2 No. of rivets and diameter of rivet holes 38 at 1 1/8"  
 Outer row rivet pitch at ends 4 1/2" Depth of flange if manhole flanged 3 1/2" 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. Manufacturer.  
 Director.

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

SEE MACHINERY REPORT

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

Total No. of visits

#### GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey in accordance with the approved plans & the workmanship & material are of good quality. It is now securely fitted on board. This Report accompanies that of the Machinery

Survey Fee

Travelling Expenses (if any)

When applied for.

When received.

192

192

W. Gordon-Mitchell

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 26 NOV 1929

Assigned

See other J.E. Rpt  
 for 19126



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