

# REPORT ON BOILERS.

Received at London Office 30.9 - OCT 1929

Date of writing Report 25/11/29 When handed in at Local Office 3<sup>rd</sup> Oct. 1929 Port of Greenock

No. in Survey held at Greenock Date, First Survey 16<sup>th</sup> October 1928 Last Survey 1<sup>st</sup> October 1929

TS/MS "Arthur's Count" (Number of Visits 2) Gross 8882.30. Net 5259.31.

Master Built at P<sup>r</sup> Elongou By whom built R Duncan L<sup>d</sup> Yard No. 391 When built 1929

Engines made at Greenock By whom made John L. Tuccard & Co. L<sup>d</sup> Engine No. 1137 When made 1929

Boilers made at ditto By whom made ditto Boiler No. 1134 When made 1929

Nominal Horse Power Owners United Molasses Co L<sup>d</sup> Port belonging to Liverpool

## MULTITUBULAR BOILERS - AUXILIARY, DONKEY.

Manufacturers of Steel Usines Metallurgiques du Hamant, Societe Anonyme (Letter for Record S) Bargo Fleet Roule. S<sup>t</sup>ul C<sup>o</sup> of Scotland

Total Heating Surface of Boilers 1823  $\pi$  Is forced draught fitted yes Fuel Oil fired oil

No. and Description of Boilers one single ended Working Pressure 180

Tested by hydraulic pressure to 320 Date of test 26.9.29 No. of Certificate 1879 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 14.02.9 as fitted 14.13.0 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 13-4 7/8 Length 11-0 Shell plates: Material S Tensile strength 28-32

Thickness 1 1/8 Are the shell plates welded or flanged Description of riveting: circ. seams end DR inter. 3.855

long. seams TR + DB S Diameter of rivet holes in circ. seams 1 1/4 long. seams 1 3/16 Pitch of rivets 8 3/8

Percentage of strength of circ. end seams plate 64.5 rivets 46.5 Percentage of strength of circ. intermediate seam plate 86.82 rivets 90.5 combined 89.8 Working pressure of shell by Rules 184

Thickness of butt straps outer 7/8 inner 1 No. and Description of Furnaces in each Boiler 3 Delightous

Material S Tensile strength 26-30 Smallest outside diameter 3-0 15/16

Length of plain part top 15 1/2 bottom 15 1/2 Thickness of plates crown 15 1/2 bottom 15 1/2 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 D N + washers Working pressure by Rules 182

Tube plates: Material front back S Tensile strength 26-30 Thickness 23/32

Mean pitch of stay tubes in nests 10.8 Pitch across wide water spaces 14 Working pressure front 192 back 188

Girders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder at centre 9 1/2 + 7 1/8 (2) Length as per Rule 27 1/2 Distance apart 8 1/2 No. and pitch of stays 3 at 9 Working pressure by Rules 204

Combustion chamber plates: Material S Tensile strength 26.30 Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 2 1/32

Pitch of stays to ditto: Sides 9 + 9 1/4 Back 8 1/2 + 9 Top 8 + 8 1/2 Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 183 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 mid. water space 13 3/4 Are stays fitted with nuts or riveted over nuts

Working Pressure 183 Main stays: Material S Tensile strength 28-32

Diameter At body of stay 3 Over threads No. of threads per inch 6 Area supported by each stay 342.5

Working pressure by Rules 196 Screw stays: Material S Tensile strength 26-30 Diameter At turned off part 1 5/8 Over threads No. of threads per inch 9 Area supported by each stay 76.5

Working pressure by Rules 198 Are the stays drilled at the outer ends 90 Margin stays: Diameter { At turned off part, 13/4" or Over threads }  
 No. of threads per inch 9 Area supported by each stay 100.62 sq in Working pressure by Rules 181  
 Tubes: Material Iron External diameter { Plain } 3" Thickness 1 1/4 + 5/16 No. of threads per inch 9  
 Pitch of tubes 45/16 + 43/16 Working pressure by Rules 192 Manhole compensation: Size of opening in shell plate 20 1/2 + 16 1/2 Section of compensating ring 2-11 + 2-4 + 13/16 No. of rivets and diameter of rivet holes 26 at 15/16  
 Outer row rivet pitch at ends 8 3/4 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 casing gear Working pressure as per Rules  
 Pressure to which the safety valves are adjusted Hydraulic test pressure tubes  
 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  
 For JOHN G. KINCAID & COY. LIMITED  
 The foregoing is a correct description,  
 J. G. Kincaid DIRECTOR Manufacturer

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler forwarded herewith Yes  
 { While erection on board vessel - - } (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 under special survey in accordance with the approved plan and the workmanship & material are of good quality, it is now securely fitted on board. This Rept. accompanies that of the Machinery (Duplicate N 34. M/S "Athal ducks" look Rept. 19014)

Survey Fee charged on Machinery Rept. : When applied for, 192  
 Expenses (if any) £ 06.05 : When received, 192  
 W. Gordon-Mitchell  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 8 OCT 1929  
 Assigned See accompanying machinery report.

