

## REPORT ON BOILERS.

Received at London Office

18 DEC 1929

Date of writing Report 18.10.1929 When handed in at Local Office 13<sup>th</sup> December 1929 Port of Greenock

No. in Survey held at Reg. Book.

Greenock

Date, First Survey 12<sup>th</sup> June 1929Last Survey 13<sup>th</sup> December 1929

39307 Sup of the

M/S "Athelregent"

(Number of Visits ✓)

Gross 8881  
Net 5231

Master Built at Sunderland By whom built Furness & Co Ltd Yard No. 153 When built 1929  
Engines made at Greenock By whom made John & Kinnaird & Co Ltd Engine No. 1748 When made 1929  
Boilers made at ditto By whom made ditto Boiler No. 1749 When made 1929  
Nominal Horse Power Owners United Molasses Co Ltd Port belonging to Liverpool

MULTITUBULAR BOILERS ~~MAIN~~, AUXILIARY, ~~OR DONKEY~~.Manufacturers of Steel Wicklow & Co Glasgow & Fred Knappe (Letter for Record S)Total Heating Surface of Boilers 1220.95 sq ft Is forced draught fitted yes Coal or Oil fired oilNo. and Description of Boilers one single ended Working Pressure 180Tested by hydraulic pressure to 320 Date of test 29.11.29 No. of Certificate 1909 Can each boiler be worked separately ✓Area of Firegrate in each Boiler oil fuel No. and Description of safety valves to each boiler Double SpringArea of each set of valves per boiler { per Rule 9.38 sq ft as fitted 9.81 sq ft Pressure to which they are adjusted 185 lb 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 5'6" 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 ✓Largest internal dia. of boilers 11'2 1/2" Length 10'6" Shell plates: Material S Tensile strength 26-32Thickness 15 1/16" Are the shell plates welded or flanged ✓ Description of riveting: circ. seams { end OR inter. 3.85long. seams T R O D B S Diameter of rivet holes in { circ. seams 1 1/8" Pitch of rivets { 4"Percentage of strength of circ. end seams { plate 40.8 rivets 45.4 Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓Percentage of strength of longitudinal joint { plate 85.4 rivets 92.4 combined 89.98 Working pressure of shell by Rules 182Thickness of butt straps { outer 23/32" inner 24/32" No. and Description of Furnaces in each Boiler 2 DeightonMaterial 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 weldDimensions of stiffening rings on furnace or c.e. bottom ✓ Working pressure of furnace by Rules 182End 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 182Tube plates: Material { front S back S Tensile strength { 26.30 Thickness { 23/32"Mean pitch of stay tubes in nests 9.78 Pitch across wide water spaces 14" Working pressure { front 184 back 192Girders to combustion chamber tops: Material S Tensile strength 26.32 Depth and thickness of girdercentre 8 1/4" x 3 1/4" (2) Length as per Rule 2' 7 1/2" Distance apart 8" No. and pitch of stayseach 2 at 10" Working pressure by Rules 183 Combustion chamber plates: Material STensile 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 nutsWorking pressure by Rules 180 Front plate at bottom: Material S Tensile strength 26.30Thickness 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 nutsWorking Pressure 183 Main stays: Material S Tensile strength 26.32Diameter { At body of stay, 2 5/8" or Over threads ✓ No. of threads per inch 6 Area supported by each stay 243.5 sq inWorking pressure by Rules 184 Screw stays: Material S Tensile strength 26.30Diameter { At turned off part, 1 7/8" or Over threads ✓ No. of threads per inch 9 Area supported by each stay 80 sq in



Working pressure by Rules 190 Are the stays drilled at the outer ends 80 Margin stays: Diameter { At turned off part, 13/4" 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 W.G. } 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 2.53 1/4" x 2.43 1/4" x 1 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 { Plate Rivets }  
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint  
 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  
 Area of each safety valve Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Working pressure as per Rules  
 Pressure to which the safety valves are adjusted Are the safety valves fitted with easing gear 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 23 inclusive for boilers been complied with

The foregoing is a correct description,  
 J. G. Kincaid & Co. Ltd.,  
 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 Yes.  
 (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 shipped to Middlesbrough at which port it will be fitted on board This Report accompanies that of the Machinery.

This boiler has been securely fitted aboard and its safety valves adjusted and tested under steam with satisfactory results.

P. J. Mann  
 M.A.B.

17.2.30.

Survey Fee £  
 charged on Mackay Riff  
 Travelling Expenses (if any)

When applied for, 192  
 When received, 192

Gordon Maclellan  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW

17 DEC 1929

Assigned Deferred

See ind. 13996  
 Lloyd's Register Foundation