

REPORT ON BOILERS.

No. 19049.

Received at London Office

19 MAY 1929

Date of writing Report 12. H. 1929 When handed in at Local Office 24th May 1929 Port of Greenock

No. in Reg. Book.

Survey held at Greenock

Date, First Survey 6th June 1928 Last Survey 24th May 1929

14708 on the

M/s "Athelcrown"

(Number of Visits ✓)

Gross 11999

Tons Net 7073

Master Built at Middlesbrough By whom built Furness & Co Ltd Yard No. 137 When built 1929

Engines made at Greenock By whom made John & McCaid & Co Ltd Engine No. 1133 When made 1929

Boilers made at ditto By whom made ditto Boiler No. 1133 When made 1929

Nominal Horse Power Owners United Molasses Co Ltd Port belonging to Liverpool

MULTITUBULAR BOILERS ~~MAIN~~, AUXILIARY, ~~OR DONKEY~~Manufacturers of Steel Societe Met allurgique de Senelle Maubeuge
Wickowitzer Bergbau & Eisenhutte, Steel Co of Scotland (Letter for Record S)Total Heating Surface of Boilers 3360 ft² Is forced draught fitted ~~arranged~~ Coal Oil fired oil

No. and Description of Boilers 2 single ended Working Pressure 180 lb

Tested by hydraulic pressure to 320 lb Date of test 12/4/29 No. of Certificate 1863 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler oil fuel No. and Description of safety valves to each boiler Pair Spring loaded

Area of each set of valves per boiler per Rule 12.9 ✓ as fitted 12.98 Pressure to which they are adjusted 185 lbs. 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 Distant Is oil fuel carried in the double bottom under boilers ✓

Smallest distance between shell of boiler and tank top plating Boilers on Deck Is the bottom of the boiler insulated ✓

Largest internal dia. of boilers 12. 10 31/32 Length 11' 0" ✓ Shell plates: Material S Tensile strength 29/32

Thickness 1 1/32" ✓ Are the shell plates welded or flanged ✓ Description of riveting: circ. seams end D R

long. seams TR & DBS Diameter of rivet holes in circ. seams 1 1/32" ✓ Pitch of rivets 3.025 ✓
long. seams 1 1/32" ✓ 4 1/16" ✓Percentage of strength of circ. end seams plate 65.9 rivets 42.4 Percentage of strength of circ. intermediate seam plate ✓
rivets 85.5Percentage of strength of longitudinal joint plate 85.5 rivets 88 Working pressure of shell by Rules 180 lb
combined 88Thickness of butt straps outer 13/16" inner 15/16" ✓ No. and Description of Furnaces in each Boiler 3 Doughtons 3.c.f.
Material S Tensile strength 26-30 Smallest outside diameter 36" 30/32"

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 3/32" Pitch of stays 18" x 16 3/4"

How are stays secured D N ✓ Working pressure by Rules 180 ✓

Tube plates: Material front back Steel Tensile strength 26-30 ✓ Thickness 2 1/32" 23/32" 181 32

Mean pitch of stay tubes in nests 8" 4" Pitch across wide water spaces 13 3/4" ✓ Working pressure front 181 back 192

Girders to combustion chamber tops: Material S Tensile strength 28-32 ✓ Depth and thickness of girder

at centre 9 1/2 x 3 1/4 (2) ✓ Length as per Rule 3' 0 5/8" ✓ Distance apart 8 1/4" ✓ No. and pitch of stays

in each 3 at 8" 1/16" ✓ Working pressure by Rules 181 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 x 9 1/4" Back 8 5/8" x 9 1/2" Top 8 1/4" x 8 1/16" Are stays fitted with nuts or riveted over Nuts:

Working pressure by Rules 182 ✓ Front plate at bottom: Material S Tensile strength 26-30

Thickness 3 1/32" ✓ Lower back plate: Material S ✓ Tensile strength 26-30 Thickness 25/32 ✓

Pitch of stays at wide water space 13 1/2" ✓ 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 2 3/4" ✓ No. of threads per inch 9 6 Area supported by each stay 306

Working pressure by Rules 182 ✓ Screw stays: Material S Tensile strength 26-30

Diameter At turned off part 1 5/8" ✓ No. of threads per inch 6 9 Area supported by each stay 83.25 in²Lloyd's Register
Foundation

W6-0037

Working pressure by Rules **204** Are the stays drilled at the outer ends **NO** Margin stays: Diameter **13/16" 2"** ✓
 No. of threads per inch **9** Area supported by each stay **99.182** Working pressure by Rules **182**
 Tubes: Material **iron** External diameter **3"** ✓ Thickness **9/16" 5/16"** No. of threads per inch **9**
 Pitch of tubes **4 3/16" 4 1/4"** ✓ Working pressure by Rules **185** Manhole compensation: Size of opening in
 shell plate **16 1/2" 12"** Section of compensating ring **2-10 1/2" 2-6 1/2" 1 1/8"** No. of rivets and diameter of rivet holes **36 at 1 1/4"**
 Outer row rivet pitch at ends **8 3/16"** ✓ 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
 Number of elements Material of tubes Steel castings
 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

FOR JOHN G. KINCAID & COY, LIMITED

The foregoing is a correct description.

W. E. Carter
 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.)

These Boilers have been built under Special Survey in accordance with the approved plans & the workmanship & material are of good quality. They have now been shipped to Middlesbrough, at which port they will be fitted on board. This Report accords with that of the Machinery

These boilers have been securely fitted aboard and their safety valves tested and adjusted under steam with satisfactory results.

M. J. Mac

Ind. 2.8.29

Charged on Mchly Rpt
 Travelling Expenses (if any) **✓**

When applied for.

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When received.

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W. E. Gordon-Mitchell

Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 27 AUG 1929

Committee's Minute **GLASGOW**

28 MAY 1929

Assigned

TRANSMIT TO LONDON

See Minute on GRC Rpt 19049 attached



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