

18 DEC 1929

## REPORT ON BOILERS.

Received at London Office

Date of writing Report

18.11.1929

When handed in at Local Office

13<sup>th</sup> Dec. 1929

Port of

Greenock

No. in Survey held at

Greenock

Date, First Survey

12<sup>th</sup> June 1929

Last Survey

13<sup>th</sup> December 1929

Reg. Book.

39307 Sup.

M/S "Athelregent"

(Number of Visits)

✓

Gross 8881

Tons

Net 5231

Master

Built at

Middlesbrough

By whom built

Furness & Co<sup>ys</sup>

Yard No.

153

When built

1929

Engines made at

Greenock

By whom made

John & McCauley & Co<sup>ys</sup>

Engine No.

1148

When made

1929

Boilers made at

ditto

By whom made

ditto

Boiler No.

1149

When made

1929

Nominal Horse Power

Owners

United Molasses Co<sup>ys</sup>

Port belonging to

Liverpool

MULTITUBULAR BOILERS ~~WATER~~ AUXILIARY, ~~OR DONKEY~~.

Manufacturers of Steel

Wilkowitzer & Co<sup>ys</sup> Ltd

(Letter for Record

S)

Total Heating Surface of Boilers

1823 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

29.11.29

No. of Certificate

1908

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

Oil fuel

No. and Description of safety valves to each boiler

Boyle's Spring

Area of each set of valves per boiler

per Rule

1402 sq ft

as fitted

1413 sq ft

Pressure to which they are adjusted

185 lb

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

4' 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

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

long. seams

TR 0035

Diameter of rivet holes in

circ. seams

1 1/4"

long. seams

1 3/16"

Pitch of rivets

3' 8 1/2"

8 3/8"

Percentage of strength of circ. end seams

plate

64.5

rivets

46.5

Percentage of strength of circ. intermediate seam

plate

85.52

rivets

✓

Percentage of strength of longitudinal joint

plate

85.52

rivets

90.5

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 Seightons

Material

S

Tensile strength

26.30

Smallest outside diameter

3-0 15/16"

Length of plain part

top

✓

Thickness of plates

crown

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

back

Tensile strength

26.30

Thickness

23/32"

Lean pitch of stay tubes in nests

10" 8

Pitch across wide water spaces

14"

Working pressure

front

192

back

168

Girders to combustion chamber tops: Material

S

Tensile strength

28.32

Depth and thickness of girder

centre

9' 2" + 7' 8" (2)

Length as per Rule

34' 6 1/2"

Distance apart

8' 1/2"

No. and pitch of stays

each

3 at 9'

Working pressure by Rules

204

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' 9 1/4"

Back

8' 1/2" + 9"

Top

9' + 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 wide water space

13 3/4"

Are stays fitted with nuts or riveted over

Nuts

Shipping Working Pressure

183

Main stays: Material

S

Tensile strength

28.32

Diameter

At body of stay,

3"

or

No. of threads per inch

6

Area supported by each stay

342.5 sq in

Working pressure by Rules

196

Screw stays: Material

S

Tensile strength

26.30

Diameter

At turned off part,

1 5/8"

or

No. of threads per inch

9

Area supported by each stay

46.5 sq in



Working pressure by Rules 198. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part. 13 1/4" or Over threads 181.

No. of threads per inch 9 Area supported by each stay 100.625 Working pressure by Rules 181.

Tubes: Material Iron External diameter { Plain } 3" Thickness { 9 WG 1 1/4 5/16" No. of threads per inch 9

Pitch of tubes 4 5/16" + 4 3/16" 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 1/16" No. of rivets and diameter of rivet holes 36 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 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 23 inclusive for boilers been complied with

The foregoing is a correct description,  
For John 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 (If not state date of approval.) Yes.

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.

See Report accompanying Flat 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  
Thick  
17.2.30.

Charged on Machinery Rept. : When applied for, 192  
Traveling Expenses (if any) £ : When received, 192

W. J. Gordon-Mitchell  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 17 DEC 1929  
Assigned Deferred

FRI. 7 MAR 1930

See Mark 2020 13996

Lloyd's Register Foundation