

## REPORT ON BOILERS.

No. 84584

Received at London Office

14 AUG 1929

Date of writing Report

1929

When handed in at Local Office

6-8-1929

Port of

Newcastle-on-Tyne.

No. in Reg. Book

Survey held at

Wallsend

Date, First Survey

March 13<sup>th</sup>

Last Survey

Aug. 6<sup>th</sup>

1929.

41129 on the

New Steel S.S. Langleetarn

(Number of Visits

Gross

4908

Tons

Net

2986.

Master

Built at

Jarrow

By whom built

Palmer &amp; Sons Ltd

Yard No.

992

When built

1929

Engines made at

Wallsend

By whom made

North Eastern Marine &amp; Dry Dock

Engine No.

2699

When made

1929

Boilers made at

Wallsend

By whom made

North Eastern Marine &amp; Dry Dock

Boiler No.

2699

When made

1929

Nominal Horse Power

481.

Owners

Messrs. McDougal &amp; Co. Ltd.

Port belonging to

Newcastle.

MULTITUBULAR BOILERS - MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Manufacturers of Steel

Appleby Iron Coy &amp; Spaldingham &amp; Co. Wks.

(Letter for Record

S.

Total Heating Surface of Boilers

6558

Is forced draught fitted

Yes.

Coal or Oil fired

Coal

No. and Description of Boilers

Three single ended

3 S.B.

Working Pressure

225 lbs.

Tested by hydraulic pressure to

388 lbs

Date of test

6-6-29

No. of Certificate

354

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

44.33

No. and Description of safety valves to each boiler

Sup spring loaded.

Area of each set of valves per boiler

per Rule

11.4

Pressure to which they are adjusted

230 lbs

Are they fitted with easing gear

Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-6"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

13'-9"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

Thickness

1 3/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 1/16"

Pitch of rivets

4"

9 3/4"

Percentage of strength of circ. end seams

plate

64.1

rivets

46.4/5

Percentage of strength of circ. intermediate seam

plate

85.25

rivets

90

Percentage of strength of longitudinal joint

plate

85.25

rivets

88.5

Working pressure of shell by Rules

228 lbs.

Thickness of butt straps

outer

1 1/16"

inner

1 3/16"

No. and Description of Furnaces in each Boiler

Three Corrugated (Brighton)

3.c.f.

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

2'-11 1/4"

Length of plain part

top

✓

Thickness of plates

crown

9 1/16"

bottom

Description of longitudinal joint

weld.

Dimensions of stiffening rings on furnace or c.c. bottom

None

Working pressure of furnace by Rules

231 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/2"

Pitch of stays

1-6 1/2 x 2-0 3/8

How are stays secured

D. Nuts

Working pressure by Rules

226.5 lbs.

Tube plates: Material

front } Steel

back }

Tensile strength

26 to 30 tons

Thickness

1"

Pitch of stays

3/4"

Mean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

14" x 4 1/2"

Working pressure

front

240 lbs

back

228.5 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

at centre

2 @ 9" x 7/8"

Length as per Rule

2'-9"

Distance apart

9 1/16"

No. and pitch of stays

in each

2 @ 9 1/8"

Working pressure by Rules

238 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

25/32"

Back

25/32"

Top

25/32"

Bottom

1"

Pitch of stays to ditto: Sides

9 1/8 x 9 1/16"

Back

10" x 9 1/16"

Top

9 1/8 x 9 1/16"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

224 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Pitch of stays at wide water space

14 1/8" x 10"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

231.5 lbs.

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay,

3 1/2"

or

Over threads

3 3/4"

No. of threads per inch

6

Area supported by each stay

451 sq"

Working pressure by Rules

240 lbs.

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part,

1 1/8"

or

Over threads

1 1/8"

No. of threads per inch

9

Area supported by each stay

94.4 sq"

007592-002601-0048

Lloyd's Register  
Foundation



482+8

Working pressure by Rules 226 lbs Are the stays drilled at the outer ends to Margin stays: Diameter 2 1/8" (At turned off part, or Over threads)

No. of threads per inch 9 Area supported by each stay 120 lbs. Working pressure by Rules 237.5 lbs.

Tubes: Material S.P. Steel External diameter 3 1/2" Thickness 5 L.S.G. No. of threads per inch 9

Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules W.W.S. 260 lbs. Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring none No. of rivets and diameter of rivet holes none

Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 4 3/8" Steam Dome: Material none

Tensile strength opp Thickness of shell opp Description of longitudinal joint opp

Diameter of rivet holes opp Pitch of rivets opp Percentage of strength of joint Plate Rivet

Internal diameter opp Working pressure by Rules opp Thickness of crown opp No. and diameter of stays opp Inner radius of crown opp Working pressure by Rules 184

How connected to shell opp Size of doubling plate under dome opp Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell opp

Type of Superheater none. Manufacturers of Tubes opp Steel castings opp

Number of elements opp Material of tubes opp Internal diameter and thickness of tubes opp

Material of headers opp Tensile strength opp Thickness opp Can the superheater be shut off and the boiler be worked separately opp

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler opp

Area of each safety valve opp Are the safety valves fitted with easing gear opp Working pressure as per Rules opp Pressure to which the safety valves are adjusted opp Hydraulic test pressure: tubes opp and after assembly in place opp Are drain cocks or valves fitted to free the superheater from water where necessary opp

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes.

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.  
The foregoing is a correct description,  
Blanchard SECRETARY, Manufacturer.

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

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

Total No. of visits opp

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)  
These Boilers have been built under Special Survey. Materials and Workmanship good. Hydraulic tests satisfactory. They have been efficiently installed & fired in the vessel examined under steam & safety valves adjusted.

Survey Fee ... £ : ✓ When applied for, 192  
Travelling Expenses (if any) £ : ✓ When received, 192

William Butler  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 16 AUG 1929  
Assigned See Minute on pwc Rps  
84587 attached