

REPORT ON BOILERS.

No. 30283

8 FEB 1930

Received at London Office

Date of writing Report

192

When handed in at Local Office

7 FEB. 1930

Port of Sunderland

No. in

No. in Survey held at
Reg. Book.

Sunderland

Date, First Survey

Last Survey

3rd Feb 1930

(Number of Visits)

Gross

4979

Tons

Net

3003

on the

S.S. "WELLINGTON COURT"

Master

Built at

Sunderland

By whom built

Messrs Pickering & Son

Yard No.

228

When built

1930

Engines made at

Sunderland

By whom made

Messrs N.E.M. Engineering Co. Ltd

Engine No.

2692

When made

1930

Boilers made at

Sunderland

By whom made

Messrs N.E.M. Engineering Co. Ltd

Boiler No.

2692

When made

1930

Nominal Horse Power

437

Owners

Haldin & Phillips Ltd

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Iron Co. & The Steel Co. of Scotland.

(Letter for Record (r))

Total Heating Surface of Boilers

7401 sq. ft.

Is forced draught fitted

No.

Coal or Oil fired

Coal

No. and Description of Boilers

3 S.E. Marine Type. 3 SB

Working Pressure

180 lbs/sq. in.

Tested by hydraulic pressure to

320 lbs/sq. in.

Date of test

14.11.29.

No. of Certificate

4070

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

60.7 sq. ft.

No. and Description of safety valves to each boiler

2 - Spring loaded

Area of each set of valves per boiler

per Rule

15.81 sq. in.

as fitted

16.58 sq. in.

Pressure to which they are adjusted

185 lbs/sq. in.

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

3'-4"

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

No.

Largest internal dia. of boilers

15'-3 9/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29/33 tons/sq. in.

Thickness

1 7/32"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

D.R. Lap.

long. seams

T.R. D.B. Straps

Diameter of rivet holes in

circ. seams

1 1/4"

long. seams

1 1/4"

Pitch of rivets

3 3/4"

8 13/16"

Percentage of strength of circ. end seams

plate

66.6.

rivets

42.5

Percentage of strength of circ. intermediate seam

plate

-

-

Percentage of strength of longitudinal joint

plate

85.81.

rivets

84.95.

combined

88.62.

Working pressure of shell by Rules

180.5 lbs/sq. in.

Thickness of butt straps

outer

1 1/16"

inner

1 1/16"

No. and Description of Furnaces in each Boiler

3 - Corrugated Right Hand Section.

Material

Steel

Tensile strength

26/30 tons/sq. in.

Smallest outside diameter

3'-8 3/8"

Length of plain part

top

-

bottom

-

Thickness of plates

crown

9/16"

bottom

-

Description of longitudinal joint

Weld.

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

Working pressure of furnace by Rules

183.8 lbs/sq. in.

End plates in steam space: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

1 1/32"

Pitch of stays

22 1/4" x 21"

How are stays secured

Double Hubs

Working pressure by Rules

180.9 lbs/sq. in.

Tube plates: Material

front

Steel

back

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

7/8"

Pitch of stays

3/4"

Mean pitch of stay tubes in nests

10 1/2"

Pitch across wide water spaces

14 1/2" x 9 1/8"

Working pressure

front 186 lbs/sq. in.

back 182 lbs/sq. in.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons/sq. in.

Depth and thickness of girder

at centre

8 3/8" x 15 1/16"

Length as per Rule

2'-8 15/32"

Distance apart

11 1/2"

No. and pitch of stays

in each

2 - 10 1/8"

Working pressure by Rules

186 lbs/sq. in.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons/sq. in.

Thickness: Sides

25/32"

Back

25/32"

Top

25/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

11 1/16" x 10 1/8"

Back

11 5/8" x 10 1/8"

Top

11 1/2" x 10 1/8"

Are stays fitted with nuts or riveted over

Hubs.

Working pressure by Rules

180.7 lbs/sq. in. (Sides)

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

29/32"

Pitch of stays at wide water space

14 3/4" x 10 1/8"

Are stays fitted with nuts or riveted over

Hubs.

Working Pressure

210 lbs/sq. in.

Main stays: Material

Steel

Tensile strength

28/32 tons/sq. in.

Diameter

At body of stay,

3 1/8"

or

3 1/2"

No. of threads per inch

6

Area supported by each stay

467.25 sq. in.

Working pressure by Rules

182.9 lbs/sq. in.

Screw stays: Material

Rum

Tensile strength

21 1/2 tons/sq. in. Min.

Diameter

At turned off part,

1 7/8"

or

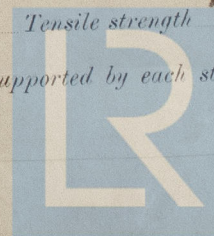
1 7/8"

No. of threads per inch

9

Area supported by each stay

118.33 sq. in.

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Foundation
010519-010525-0155

Working pressure by Rules 180 lb/sq in Are the stays drilled at the outer ends No. Margin stays: Diameter 2" ^{At turned off part,} _{or} ^{Over threads}
No. of threads per inch 9. Area supported by each stay 133.52 sq in Working pressure by Rules 184 lb/sq in
Tubes: Material Seamless Steel External diameter 3 1/4" Thickness 5/16" 8 W.G. No. of threads per inch 9.
Pitch of tubes 4 9/16" x 4 9/16" Working pressure by Rules 182, 195 & 230 Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 12.75" x 1 9/32" No. of rivets and diameter of rivet holes 32 - 1 7/16"
Outer row rivet pitch at ends 9 1/2" Depth of flange if manhole flanged 4" 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 22 inclusive for boilers been complied with Yes

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

Dates of Survey ^{During progress of} _{work in shops - -} Please see Mech. Rpt Are the approved plans of boiler and superheater forwarded herewith
^{while} _{building} ^{During 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.) These Boilers have been built
under Special Survey and the Materials and Workmanship are
good. On completion they were satisfactorily fitted in the Vessel,
and the Safety Valves adjusted under steam. For recommendations
regarding notation see Machinery Report.

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

Charged on
Mach. Report.

Matthew Caldwell.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 14 FEB. 1930

Assigned

See other J.E. Rpt.



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