

REPORT ON BOILERS.

No. 83275.

Received at London Office 19 SEP 1928

Date of writing Report

When handed in at Local Office

18 SEP 1928

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at Reg. Book.

Wallsend-on-Tyne

Date, First Survey 8/12/27

Last Survey 11.9.28

on the

New Steel S.S. "Gaddington Court"

(Number of Visits)

Gross 5322

Net 3258

Master

Built at

Hillington Quay

By whom built

Northumberland S.S. Co. Ltd

Yard No. 405

When built 1928

Engines made at

Wallsend

By whom made

Wallsend Slipways & E. Co. Ltd

Engine No. 846

When made 1928

Boilers made at

Wallsend

By whom made

Wallsend Slipways & E. Co. Ltd

Boiler No. 846

When made 1928

Nominal Horse Power

569

Owners

Court Line Ltd

Port belonging to

London

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

Manufacturers of Steel

Steel Company of Scotland Ltd.

(Letter for Record

R. (+)

Total Heating Surface of Boilers

8484 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Coal

No. and Description of Boilers

Three single ended 3 SB

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test 20.4.28

No. of Certificate 264

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

54 sq ft

No. and Description of safety valves to each boiler

Two spring loaded, high lift.

Area of each set of valves per boiler

per Rule 18.4 = 9.2 sq ft

as fitted 9.87 sq ft

Pressure to which they are adjusted

185 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 uptakes and bunkers or woodwork

6'-6"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

2'-1"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

15'-6 9/16"

Length 12'-0"

Shell plates: Material

Steel

Tensile strength

30 to 34 tons

Thickness

1 1/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.

long. seams

T. R. D. B. S.

Diameter of rivet holes in

circ. seams

long. seams

1 1/32"

Pitch of rivets

3.45"

Percentage of strength of circ. end seams

plate 65.1

rivets 48.5

Percentage of strength of circ. intermediate seam

plate 84.4

rivets 85.6

Percentage of strength of longitudinal joint

plate 86.6

rivets 85.6

Working pressure of shell by Rules

183 lbs.

Thickness of butt straps

outer 1/16"

inner 1/16"

No. and Description of Furnaces in each Boiler

Three corrugated (Deighton)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-10 3/4"

Length of plain part

top none

bottom

Thickness of plates

crowns 19/32"

bottoms

19/32"

Description of longitudinal joint

weld.

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

none

Working pressure of furnace by Rules

185 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 3/32"

Pitch of stays

10 1/2" x 18 3/8"

How are stays secured

Double nuts

Working pressure by Rules

182 lbs.

Tube plates: Material

front Steel

back Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Mean pitch of stay tubes in nests

9.375

Pitch across wide water spaces

13 1/4" x 4 1/2"

Working pressure

front 184 lbs

back 214 lbs.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 tons

Depth and thickness of girder

at centre

2 @ 21/4" x 9 1/2"

Length as per Rule

2'-10 1/8"

Distance apart

9 1/2"

No. and pitch of stays

in each

3 @ 8 1/4"

Working pressure by Rules

182 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

2 1/32"

Back

2 1/32"

Top

2 1/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

10 x 8 1/4"

Back

10 x 8"

Top

9 1/2" x 8 1/4"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

182 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

4/8"

Pitch of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

225 lbs.

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay, or over threads

3/4"

No. of threads per inch

6

Area supported by each stay

420 sq in

Working pressure by Rules

192 lbs.

Screw stays: Material

Iron

Tensile strength

21 1/2 tons min

Diameter

At turned off part, or over threads

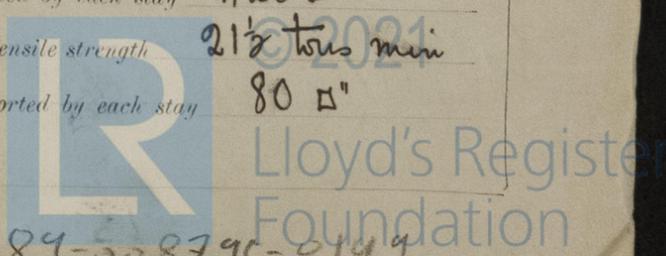
1 5/8"

No. of threads per inch

9

Area supported by each stay

80 sq in



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Working pressure by Rules 190 lbs Are the stays drilled at the outer ends no Margin stays: 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 101.8 sq" Working pressure by Rules 210 lbs.

Tubes: Material Iron External diameter ^{Plain} 2 1/2" Thickness ^{9 lbs.} 5/16" No. of threads per inch 9

Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules W.S. 190 lbs Manhole compensation: Size of opening in shell plate 16" x 20" Section of compensating ring 11 1/2" x 1 1/2" No. of rivets and diameter of rivet holes 11 @ 1 1/2"

Outer row rivet pitch at ends 8 1/2" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material none.

Tensile strength 204 Thickness of shell as mounted Description of longitudinal joint as mounted

Diameter of rivet holes 3/8" Pitch of rivets as mounted Percentage of strength of joint ^{Plate} as mounted ^{Rivets} as mounted

Internal diameter as mounted Working pressure by Rules as mounted Thickness of crown as mounted No. and diameter of stays as mounted

How connected to shell as mounted Inner radius of crown as mounted Working pressure by Rules as mounted

Size of doubling plate under dome as mounted Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell as mounted

Type of Superheater none Manufacturers of Tubes as mounted Steel castings as mounted

Number of elements as mounted Material of tubes as mounted Internal diameter and thickness of tubes as mounted

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

Area of each safety valve as mounted Is a safety valve fitted to every part of the superheater which can be shut off from the boiler as mounted

Rules as mounted Pressure to which the safety valves are adjusted as mounted Working pressure as per Rules as mounted Hydraulic test pressure: as mounted

tubes as mounted castings as mounted and after assembly in place as mounted Are drain cocks or valves fitted to free the superheater from water where necessary as mounted

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

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.
The foregoing is a correct description,
Adm. Loring Manufacturer.

Dates of Survey ^{During progress of work in shops --} Please see Machinery Report. Are the approved plans of boiler and superheater forwarded herewith yes (If not state date of approval.)

^{while building} ^{During erection on board vessel --} as mounted Total No. of visits as mounted

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These Boilers have been built under Special Survey, Materials & Workmanship good. Hydraulic tests satisfactory. They are securely fixed in the vessel were examined under steam & safety valves adjusted.

Survey Fee £ 192 When applied for.

Travelling Expenses (if any) £ 192 When received.

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

Committee's Minute FRI. 28 SEP 1928

Assigned See Rpt. attached

