

REPORT ON BOILERS.

No. 85557

8 APR 1930

Received at London Office

Date of writing Report

10

When handed in at Local Office

5/4/1930 Port of

NEWCASTLE-ON-TYNE

No. in Reg. Book.

Survey held at

Wallsend-on-Tyne

Date, First Survey

11 Nov 129

Last Survey

31 Dec 1930

(Number of Visits)

Gross

Tons

Net

on the New Steel S S Acadialite

Master

Built at Middlesbrough

By whom built

Turners & Co Ltd

Yard No.

170

When built

1930

Engines made at

Wallsend

By whom made

North Eastern Marine & Coy Ltd

Engine No.

2741

When made

1930

Boilers made at

Wallsend

By whom made

North Eastern Marine & Coy Ltd

Boiler No.

2741

When made

1930

Nominal Horse Power

158

Owners

Imperial Oil Ltd.

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel City of Scotland & Raine & Co Ltd

(Letter for Record)

* (2)

Total Heating Surface of Boilers

2 of 18

Is forced draught fitted

No

Coal or Oil fired

oil

No. and Description of Boilers

One single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

5-2-30

No. of Certificate

428

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

oil only

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule

22.5 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 boiler uptakes and bunkers or woodwork

5-0

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

None

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-9 1/2"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

28 to 32 tons

Thickness

19/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

DR

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

long. seams

15/16"

Pitch of rivets

3 3/4"

9 5/16"

Percentage of strength of circ. end seams

plate

rivets

65

46.4

85.9

Percentage of strength of circ. intermediate seam

plate

rivets

Yes

Percentage of strength of longitudinal joint

plate

rivets

84.3

89.3

Working pressure of shell by Rules

180 lbs

Thickness of butt straps

outer

1 1/8"

inner

1 1/8"

No. and Description of Furnaces in each Boiler

4 corrugated (marison)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

31-2 1/4"

Length of plain part

top

bottom

Yes

Thickness of plates

crown

bottom

1/2"

Description of longitudinal joint

weld

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

None

Working pressure of furnace by Rules

188 lbs

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/16"

Pitch of stays

1-11 x 1-11

How are stays secured

Double nuts

Working pressure by Rules

183.5 lbs

Tube plates: Material

front

back

Steel

Tensile strength

26 to 30 tons

Thickness

3/4"

Mean pitch of stay tubes in nests

8 1/8"

Pitch across wide water spaces

14 1/2 x 8 3/4"

Working pressure

front

back

184 lbs

255 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 tons

Depth and thickness of girder

Distance apart

11 1/2"

No. and pitch of stays

at centre

2 @ 8 x 3/4"

Length as per Rule

2'-3"

in each

2 @ 8 x 3/4"

Working pressure by Rules

201 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

1"

Pitch of stays to ditto: Sides

9 x 1 5/8"

Back

9 x 1 5/8"

Top

8 3/4 x 11 1/2"

Are stays fitted with nuts or riveted over

riveted

Working pressure by Rules

190 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

1/8"

Pitch of stays at wide water space

14 1/2" x 1 5/8"

Are stays fitted with nuts or riveted over

riveted

Working Pressure

233 lbs

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay

or

Over threads

3 3/4"

No. of threads per inch

6

Area supported by each stay

529 sq"

Working pressure by Rules

204 lbs

Screw stays: Material

W. Iron

Tensile strength

23 tons

Diameter

At turned off part

or

Over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

68.63 sq"

Lloyd's Register

Foundation

010440-010450-0222

Working pressure by Rules 183 lbs. Are the stays drilled at the outer ends yes Margin stays: Diameter { At turned off part or Over threads 1 3/4" No. of threads per inch 9 Area supported by each stay 100.65 sq. in. Working pressure by Rules 180.5 lbs Tubes: Material W. Iron External diameter { Plate 3 1/4" Thickness 9 LSG 1/4 5/16 3/8 No. of threads per inch 9 Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules 180 lbs. Manhole compensation Size of opening in shell plate 20 5/8 x 16 5/8 Section of compensating ring 13 1/4 x 15 1/6 No. of rivets and diameter of rivet holes 34 @ 1 1/2" Outer row rivet pitch at ends 10 3/4" Depth of flange if manhole flanged 4" Steam Dome: Material none 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

Number of elements Material of tubes Manufacturers of Tubes Steel castings 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 NORTH EASTERN MARINE ENGINEERING CO., LTD. The foregoing is a correct description, Manufacturer. Dates of Survey { During progress of work in shops - - - See Mely Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes building { During erection on board vessel - - - Total No. of visits

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has been built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. It has been securely fixed in place examined under steam & safety valves adjusted.

Survey Fee ... £ Travelling Expenses (if any) £ When applied for, 19 When received, 19

Committee's Minute WED. 23 APR 1930 Assigned See F.E. Rpt. William Butler Engineer Surveyor to Lloyd's Register of Shipping.

