

REPORT ON BOILERS.

No. 84157.

9 MAY 1929

Received at London Office

Date of writing Report

192

When handed in at Local Office

7.6.29.

192

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Surrey held at

SOUTH SHIELDS

Date, First Survey

Last Survey

192

89348

on the

S.S. "BRIKA"

(Number of Visits

Tons

Gross 4412

Net 2736

Master

Built at South Shields

By whom built

John Readhead & Sons Ltd

Yard No.

495

When built 1929

Engines made at

South Shields

By whom made

John Readhead & Sons Ltd.

Engine No.

495

When made 1929

Boilers made at

South Shields

By whom made

John Readhead & Sons Ltd.

Boiler No.

495

When made 1929

Nominal Horse Power

341

Owners

La Tunisienne Steam Nav. Co. Ltd.

Port belonging to

Livorno.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland Ltd.

(Letter for Record r)

Total Heating Surface of Boilers

4460 sq. Feet ✓

Is forced draught fitted

Yes ✓

Coal or Oil fired

Coal ✓

No. and Description of Boilers

Two Single-Ended Multitubular ✓

2 S.B.

Working Pressure 180 lbs ✓

Tested by hydraulic pressure to

320 lbs

Date of test

1/3/29

No. of Certificate

337

Can each boiler be worked separately

Yes ✓

Area of Firegrate in each Boiler

54.6 sq. ft.

No. and Description of safety valves to each boiler

14.30" ✓

two-Spring-loaded ✓

Area of each set of valves per boiler

per Rule 14.30" ✓

as fitted 16.590" ✓

Pressure to which they are adjusted

180 lbs ✓

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

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

14'3 5/8" ✓

Length

11'9" ✓

Shell plates: Material

Steel ✓

Tensile strength 28/32 Tons ✓

Thickness

1 3/16" ✓

Are the shell plates welded or flanged

No ✓

Description of riveting: circ. seams

end

D.R. Lap ✓

long. seams

T.R. D.B.S. ✓

Diameter of rivet holes in

circ. seams 1 1/4" ✓

long. seams 1 1/4" ✓

Pitch of rivets

3 7/8" ✓

Percentage of strength of circ. end seams

plate 67.7 ✓

rivets 43.8 ✓

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.6 ✓

rivets 92.3 ✓

combined 89.5 ✓

Working pressure of shell by Rules

182.6 lbs ✓

Thickness of butt straps

outer 15" ✓

inner 1 1/16" ✓

No. and Description of Furnaces in each Boiler

three Dighton Corrugated ✓

3.C.f.

Material

Steel ✓

Tensile strength

26/30 Tons ✓

Smallest outside diameter

40 7/8" ✓

Length of plain part

top

bottom

Thickness of plates

crown 9" ✓

bottom 1 1/16" ✓

Description of longitudinal joint

Weld ✓

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

none fitted ✓

Working pressure of furnace by Rules

199.5 lbs ✓

End plates in steam space: Material

Steel ✓

Tensile strength

26/30 Tons ✓

Thickness

1 1/32" ✓

Pitch of stays 22"x18 1/2" ✓

How are stays secured

Double Nuts & Loose Washers 1 1/2" dia. x 7/8" ✓

Working pressure by Rules

189 lbs ✓

Tube plates: Material

front Steel ✓

back Steel ✓

Tensile strength

26/30 Tons ✓

Thickness

13/16" plate 1 1/16" doubler ✓

Mean pitch of stay tubes in nests

9 3/8" ✓

Pitch across wide water spaces

13 1/2" ✓

Working pressure

front 194.5 lbs ✓

back 229 lbs ✓

Girders to combustion chamber tops: Material

Steel ✓

Tensile strength

28/32 Tons ✓

Depth and thickness of girder

at centre

8 1/2" x 1 3/4" ✓

Length as per Rule

31 1/2" ✓

Distance apart

10" ✓

No. and pitch of stays

in each

two - 9 1/2" ✓

Working pressure by Rules

216.5 lbs ✓

Combustion chamber plates: Material

Steel ✓

Tensile strength

26/30 Tons ✓

Thickness: Sides

23/32" ✓

Back

1 1/16" ✓

Top

23/32" ✓

Bottom

3/4" ✓

Pitch of stays to ditto: Sides

10"x9 1/4" ✓

Back

9 1/2"x9 1/4" ✓

Top

10"x9 1/2" ✓

Are stays fitted with nuts or riveted over

Nuts ✓

Working pressure by Rules

188 lbs ✓

Front plate at bottom: Material

Steel ✓

Tensile strength

26/30 Tons ✓

Thickness

13" ✓

Lower back plate: Material

Steel ✓

Tensile strength

26/30 Tons ✓

Thickness

13/16" ✓

Pitch of stays at wide water space

13 1/2" ✓

Are stays fitted with nuts or riveted over

Nuts ✓

Working Pressure

197 lbs ✓

Main stays: Material

Steel ✓

Tensile strength

28/32 Tons ✓

Diameter

At body of stay, or Over threads

3 1/4" ✓

No. of threads per inch

Six ✓

Area supported by each stay

22"x18 1/2" ✓

Working pressure by Rules

197.5 lbs ✓

Screw stays: Material

Iron ✓

Tensile strength

2 1/2 Tons ✓

Diameter

At turned off part, or Over threads

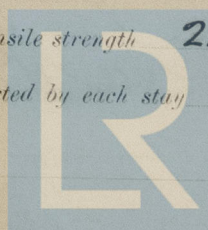
1 7/8" ✓

No. of threads per inch

Nine ✓

Area supported by each stay

10"x9 1/2" ✓



Lloyd's Register Foundation

00615-010623-0150

Working pressure by Rules **224 lbs** Are the stays drilled at the outer ends **No** Margin stays: Diameter ^{At turned off part.} ^{or} ^{Over threads} **2"**

No. of threads per inch **nine** Area supported by each stay **11 3/8" x 9 1/2"** Working pressure by Rules **229 lbs**

Tubes: Material **Iron** External diameter ^{Plain} **2 1/2"** ^{Stay} **2 1/2"** Thickness **9 Lsg.** **5/16" x 3/8"** No. of threads per inch **nine**

Pitch of tubes **3 3/4" x 3 3/4"** Working pressure by Rules **Plain 230 lbs; Stay 204 lbs.** Manhole compensation: Size of opening in shell plate **16" x 12"** Section of compensating ring **8" x 1 3/16"** No. of rivets and diameter of rivet holes **28 - 1 1/4"**

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

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 **none fitted** 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.**

For JOHN READHEAD & SONS, LIMITED,
The foregoing is a correct description,
J. H. Readhead 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.)
Total No. of visits

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

These Boilers have been constructed under the usual Conditions of Survey and testing and found satisfactory. They have been securely fixed in the Vessel and their Safety Valves have been adjusted under steam.

Survey Fee **1st Entry on Machinery.** **£** **:** **:** When applied for, **192**

Travelling Expenses (if any) **£** **:** **:** When received, **192**

W. Morrison
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 10 MAY 1929**
Assigned *See Ref. ylt. attached*