

REPORT ON BOILERS.

No. 84157

Date of writing Report

192

When handed in at Local Office

7.5.29

Port of

Received at London Office

9 MAY 1929

No. in Survey held at

SOUTH SHIELDS

Date First Survey

Last Survey

192

89348 on the

S.S. "BRIKA"

(Number of Visits)

Gross
Tons

4412

Net
Tons

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.

Port belonging to

Swansea.

Co. Ltd.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd

(Letter for Record R)

Total Heating Surface of Boilers

1290.4 sq. Feet

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One Single-Ended Multitubular

Working Pressure 120 lbs

Tested by hydraulic pressure to

230

Date of test

5/3/29

No. of Certificate

338

Can each boiler be worked separately

Area of Firegrate in each Boiler

34 sq. Ft.

No. and Description of safety valves to each boiler

Two Spring-loaded

Area of each set of valves per boiler

per Rule 11.930

as fitted 12.980

Pressure to which they are adjusted

120 lbs

Are they fitted with easing gear

Yes

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

No

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and deck

15"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

11' 10 9/16"

Length

10' 6"

Shell plates: Material

Steel

Tensile strength

28/32 Tons

Thickness

23/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

D.R. Lap

long. seams

D.R. D.B.S.

Diameter of rivet holes in

circ. seams 15/16"

long. seams 15/16"

Pitch of rivets

3"

15/16"

Percentage of strength of circ. end seams

plate 68.7

rivets 52.6

Percentage of strength of circ. intermediate seam

plate 81.2

rivets 90

Percentage of strength of longitudinal joint

plate 81.2

rivets 90

Working pressure of shell by Rules

122 lbs

Thickness of butt straps

outer 5/8"

inner 3/4"

No. and Description of Furnaces in each Boiler

two plain

Material

Steel

Tensile strength

26/30 Tons

Smallest outside diameter

42 1/2"

Length of plain part

top 6' 8 25/32"

bottom 9' 3"

Thickness of plates

crown 21"

bottom 32"

Description of longitudinal joint

Weld

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

none fitted

Working pressure of furnace by Rules

122 lbs

End plates in steam space: Material

Steel

Tensile strength

26/30 Tons

Thickness

13/16"

Pitch of stays

17" x 15 1/2"

How are stays secured

Double Nuts & Loose Washers 9" dia. x 5/8"

Working pressure by Rules

129 lbs

Tube plates: Material

front Steel

back Steel

Tensile strength

26/30 Tons

Thickness

25/32 plate

9" doubler

Mean pitch of stay tubes in nests

9 1/2"

Pitch across wide water spaces

14"

Working pressure

front 136 lbs

back 152 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 Tons

Depth and thickness of girder

at centre

6" x 15/8"

Length as per Rule

26"

Distance apart

11 1/2"

No. and pitch of stays

in each

two - 8"

Working pressure by Rules

135 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Tons

Thickness: Sides

19/32"

Back

19/32"

Top

19/32"

Bottom

13/16"

Pitch of stays to ditto: Sides

10" x 9"

Back

10 1/4" x 9"

Top

11 1/2" x 8"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

124 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30 Tons

Thickness

25/32"

Lower back plate: Material

Steel

Tensile strength

26/30 Tons

Thickness

21/32"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

124 lbs

Main stays: Material

Steel

Tensile strength

28/32 Tons

Diameter

At body of stay, or Over threads 2 1/2"

No. of threads per inch

Six

Area supported by each stay

17" x 15 1/2"

Working pressure by Rules

168 lbs

Screw stays: Material

Iron

Tensile strength

21 1/2 Tons

Diameter

At turned off part, or Over threads 1 1/2"

No. of threads per inch

nine

Area supported by each stay

10 1/4" x 9"

Working pressure by Rules 134 lbs Are the stays drilled at the outer ends No. 12"x9" Margin stays: Diameter 3/4" (At turned off part, or Over threads)
 No. of threads per inch nine Area supported by each stay 3 1/2" Working pressure by Rules 168 lbs
 Tubes: Material Iron External diameter 3 1/2" Thickness 10 W.G. No. of threads per inch nine
 Pitch of tubes 4 3/4" x 4 3/4" Working pressure by Rules Plain 120 lbs: Stay 133 lbs Manhole compensation: Size of opening in
 shell plate 16"x12" Section of compensating ring 7"x 23/32" No. of rivets and diameter of rivet holes 38 - 13/16"
 Outer row rivet pitch at ends 5" Depth of flange if manhole flanged 2" 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.

The foregoing is a correct description,
J. M. 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.)

This Boiler has been constructed under the usual Conditions of Survey and testing and found Satisfactory. It has been securely fixed in the Vessel and its Safety Valves have been adjusted under steam.

1st Entry on Machinery
 Survey Fee £ : :
 Travelling Expenses (if any) £ : :

When applied for, 192
 When received, 192

W. Morrison.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 10 MAY 1929

Assigned

See Report attached



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