

REPORT ON BOILERS

No. 7476

8 MAR. 1921

Received at London Office

NEWCASTLE ON TYNE

7 - MAR 1921

Date of writing Report

19

When handed in at Local Office

19

Port of

No. in Survey held at
Reg. Book.

South Shields

Date, First Survey

While Building

19

on the SS Fredinnick

(Number of Visits

Gross

Tons

Net

Master

Built at South Shields

By whom built J. Readhead & Sons, Ltd

When built 1921

Engines made at South Shields

By whom made J. Readhead & Sons, Ltd.

When made 1921.

Boilers made at South Shields

By whom made J. Readhead & Sons, Ltd.

When made 1921.

Registered Horse Power

Owners Hain, S.S. Co. Ltd.

Port belonging to St. Ives

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer & Sons Ltd

Letter for record

5

Total Heating Surface of Boilers

1266.17 sq ft

Is forced draft fitted

no

No. and Description of

Boilers One single ended multitubular boiler

Working Pressure

90 lb

Tested by hydraulic pressure to

180 lb

Date of test 20/9/20.

No. of Certificate 9463.

Can each boiler be worked separately

✓

Area of fire grate in each boiler

33.4 sq ft

No. and Description of

safety valves to each boiler

2 Spring loaded

Area of each valve

7.06 sq in

Pressure to which they are adjusted

90 lb

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

1'-6"

Mean dia. of boilers

10'-9 21/32"

Length

11'-0"

Material of shell plates

Steel

Thickness

21/32"

Range of tensile strength

28/32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R. lap.

long. seams

D.R. lap.

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

4 3/8"

Lap of plates or width of butt straps

5 1/2"

Per centages of strength of longitudinal joint

72.69 %

Working pressure of shell by

rules

95.8 lb

Size of manhole in shell

16" x 12"

Size of compensating ring

8" x 2 1/32"

No. and Description of Furnaces in each

boiler

2 Plain

Material

Steel

Outside diameter

3'-2"

Length of plain part

top 7'-3 3/8"

Thickness of plates

crown 17/32"

Description of longitudinal joint

S.R. lap.

No. of strengthening rings

✓

Working pressure of furnace by the rules

157.3 lb

Combustion chamber

plates: Material

Steel

Thickness: Sides

5/8"

Back 5/8"

Top 5/8"

Bottom 21/32"

Pitch of stays to ditto: Sides

10 1/2" x 10"

Back

12" x 12"

Top 12" x 10" If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

128.4 lb

Material of stays

Iron

Area at

smallest part

1.99

Area supported by each stay

144 sq in

Working pressure by rules

93.7 lb

End plates in steam space: Material

Steel

Thickness

7/8"

Pitch of stays

18"

How are stays secured

2, 2 1/2" x 1/2" double plate

Working pressure by rules

126 lb

Material of stays

Steel

Area at smallest part

4.4

Area supported by each stay

324 sq in

Working pressure by rules

132 lb

Material of Front plates at bottom

Steel

Thickness

23/32"

Material of

Lower back plate

Steel

Thickness

23/32"

Greatest pitch of stays

12" x 12"

Working pressure of plate by rules

124 lb

Diameter of tubes

3 1/4"

Pitch of tubes

4 3/8" x 4 3/8"

Material of tube plates

Steel

Thickness: Front

23/32"

Back 23/32"

Mean pitch of stays

13 1/8"

Pitch across wide

spaces

water spaces

13 1/2"

Working pressures by rules

184 lb

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

6" x 1 1/2"

Length as per rule

girder at centre

6" x 1 1/2"

Length as per rule

2' 2"

Distance apart

12"

Number and pitch of Stays in each

2' - 10"

Working pressure by rules

115.3 lb

Steam dome: description of joint to shell

none

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

UPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

The foregoing is a correct description,

FOR JOHN READHEAD & SONS, LIMITED

W.R. Henry Eng^r Manager

Manufacturer.

Dates of Survey
while building

During progress of work in shops - -

During erection on board vessel - - -

See Machinery Report

Is the approved plan of boiler forwarded herewith

Total No. of visits

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

The Donkey Boiler of this vessel has been constructed under special survey the material and workmanship are of good quality it has been securely fitted on board in the tween decks with the necessary mountings and the safety valves adjusted under steam

Survey Fee

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...

£

4

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4

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When applied for,

7 - MAR 1921

19

Travelling Expenses (if any)

£

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:

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When received,

11. 3. 19

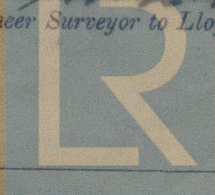
19

FRI. 11 MAR. 1921

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation

W130-0013