

## REPORT ON BOILERS.

No. 59555

Received at London Office

SAT. 7 JAN 1911

Date of writing Report

19

When handed in at Local Office

JAN 8 1911

Port of Newcastle on Tyne

No. in

Survey held at

Newcastle on Tyne

Date, First Survey

5<sup>th</sup> April 1910

Last Survey

5<sup>th</sup> January 1911

Reg. Book.

on the

S. S. "Harmattan"

(Number of Visits)

Gross

4791

Tons

Net

3046

Master

Built at

Walker

By whom built

Swan Hunter &amp; Wigham Richardson

When built

1911

Engines made at

Walker

By whom made

Ditto

when made

1911

Boilers made at

Walker

By whom made

Ditto

when made

1911

Registered Horse Power

Owners

J. R. Harrison &amp; Co

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

J. Spencer &amp; Sons

Letter for record

Total Heating Surface of Boilers

1006  $\frac{1}{2}$   $\frac{1}{2}$ 

Is forced draft fitted

no

No. and Description of

Boilers

one S.E. Cyl<sup>l</sup> Mult<sup>l</sup>

Working Pressure

106  $\frac{1}{2}$ 

Tested by hydraulic pressure to

212  $\frac{1}{2}$ 

Date of test

30.11.10

No. of Certificate

8063

Can each boiler be worked separately

✓

Area of fire grate in each boiler

34.5  $\frac{1}{2}$ 

No. and Description of

safety valves to each boiler

2 Spring Patent

Area of each valve

7.06  $\frac{1}{2}$ 

Pressure to which they are adjusted

106  $\frac{1}{2}$ 

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

on deck

Mean dia. of boilers

10.10  $\frac{5}{8}$ 

Length

9.6  $\frac{1}{2}$ 

Material of shell plates

steel

Thickness

11  $\frac{1}{16}$ 

Range of tensile strength

28  $\frac{3}{32}$ 

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

d. r. lap

long. seams

L. r. lap

Diameter of rivet holes in long. seams

1  $\frac{1}{32}$ 

Pitch of rivets

3  $\frac{3}{8}$ 

Lap of plates or width of butt straps

7  $\frac{1}{2}$ 

Per centages of strength of longitudinal joint

rivets 80.4

Working pressure of shell by

rules

106.2  $\frac{1}{2}$ 

Size of manhole in shell

16  $\times$  12

Size of compensating ring

7  $\frac{1}{2}$   $\times$  11  $\frac{1}{16}$ 

No. and Description of Furnaces in each

boiler

2 plain

Material

steel

Outside diameter

30  $\frac{5}{8}$ 

Length of plain part

top 72  $\frac{1}{2}$ 

bottom 80

Thickness of plates

crown 9  $\frac{1}{16}$ bottom 11  $\frac{1}{16}$ 

Description of longitudinal joint

double butt

No. of strengthening rings

✓

Working pressure of furnace by the rules

121.5  $\frac{1}{2}$ 

plates: Material

steel

Thickness: Sides

15  $\frac{1}{32}$ 

Back

15  $\frac{1}{32}$ 

Top

15  $\frac{1}{32}$ 

Bottom

13  $\frac{1}{16}$ 

Pitch of stays to ditto: Sides

7  $\frac{1}{2}$   $\times$  7  $\frac{1}{2}$ 

Back

7  $\frac{1}{2}$   $\times$  7  $\frac{1}{2}$ 

Top

7  $\frac{1}{2}$   $\times$  7  $\frac{1}{2}$ 

If stays are fitted with nuts or riveted heads

quite

Working pressure by rules

108  $\frac{1}{2}$ 

smallest part

1.19

Area supported by each stay

62

Working pressure by rules

115  $\frac{1}{2}$ 

End plates in steam space: Material

S

Thickness

13  $\frac{1}{16}$ 

Pitch of stays

15  $\frac{1}{16}$   $\times$  17

How are stays secured

d. r. w.

Working pressure by rules

119  $\frac{1}{2}$ 

Material of stays

steel

Diameter at smallest part

3.26

Area supported by each stay

259.25

Working pressure by rules

130  $\frac{1}{2}$ 

Material of Front plates at bottom

steel

Thickness

13  $\frac{1}{16}$ 

Material of

Lower back plate

steel

Thickness

13  $\frac{1}{16}$ 

Greatest pitch of stays

13  $\times$  7  $\frac{1}{2}$ 

Working pressure of plate by rules

197.5  $\frac{1}{2}$ 

Diameter of tubes

3

Pitch of tubes

4  $\frac{1}{2}$   $\times$  4  $\frac{1}{4}$ 

Material of tube plates

steel

Thickness: Front

13  $\frac{1}{16}$ 

Back

19  $\frac{1}{32}$ 

Mean pitch of stays

12  $\frac{1}{2}$   $\times$  8  $\frac{1}{2}$ 

Pitch across wide

water spaces

14

Working pressures by rules

120.7  $\frac{1}{2}$ 

Girders to Chamber tops: Material

steel

Depth and thickness of

girder at centre

6  $\frac{1}{2}$   $\times$  1

Length as per rule

27  $\frac{3}{8}$ 

Distance apart

7  $\frac{1}{2}$ 

Number and pitch of Stays in each

2 - 7  $\frac{1}{2}$ 

Working pressure by rules

111.7  $\frac{1}{2}$ 

Superheater or Steam chest: how connected to boiler

✓

Can the superheater be shut off and the boiler worked

separately

✓

Diameter

✓

Length

✓

Thickness of shell plates

✓

Material

✓

Description of longitudinal joint

✓

Diam. of rivet

holes

✓

Pitch of rivets

✓

Working pressure of shell by rules

✓

Diameter of flue

✓

Material of flue plates

✓

Thickness

If stiffened with rings

✓

Distance between rings

✓

Working pressure by rules

✓

End plates: Thickness

✓

How stayed

✓

Working pressure of end plates

✓

Area of safety valves to superheater

✓

Are they fitted with easing gear

✓

The foregoing is a correct description,

The foregoing is a correct description,

J. R. Harrison &amp; Co. Manufacturer.

DIRECTOR. Yes

Dates

During progress of

See machy report

of Survey

work in shops - -

while

During erection on

building

board vessel - -

Is the approved plan of boiler forwarded herewith

Total No. of visits

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

This donkey boiler has

been constructed under special survey, the workmanship and materials used are both of good quality, it has been satisfactorily mounted & fitted on board, and the safety Valves adjusted under steam

Survey Fee

£ 2 : 2 : 0

When applied for

See machy report

Travelling Expenses (if any) £

When received

19

Rsr. Croombor.

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

Assigned

TUE. 10 JAN 1911



© 2020

Lloyd's Register Foundation