

Rpt. 5a.

(Boiler No 2058).

REPORT ON BOILERS.

No. 10885.

Date of writing Report

19

When handed in at Local Office

19

Port of

Received at London Office

LIVERPOOL

No. in Survey held at

Date, First Survey

23 Dec 19

Last Survey

19 May 1920.

Reg. Book.

(Number of Visits 18.)

Gross

Tons

Net

on the

S/S. I.P. Tilling

Master

Built at

By whom built

When built

Engines made at

By whom made

When made

Boilers made at

Burkenhead

By whom made

Cammell Laird & Co Ltd

When made

1920.

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spencer & Sons Ltd

Carl of Dudley Trans Iron Works

(Letter for record

S)

Total Heating Surface of Boilers

1490 sq

Is forced draft fitted

No. and Description of

Boilers

One, Cylindrical, Multitubular

Working Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test 15.5.20.

No. of Certificate

2124

Can each boiler be worked separately

Area of fire grate in each boiler

48 sq

No. and Description of

safety valves to each boiler

Two Spring loaded

Area of each valve

4.9 sq

Pressure to which they are adjusted

Are they fitted with easing gear

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

Inside

Mean dia. of boilers

13'-0"

Length

10'-0"

Material of shell plates

Steel

Thickness

1 1/2"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R. lap

long. seams

T.R. Double Stitches

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

7 1/2"

Lap of plates or width of butt straps

16 7/8"

Per centages of strength of longitudinal joint

rivets

88.5%

Working pressure of shell by

plate

86.6%

rules

181 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

McNeil

No. and Description of Furnaces in each

boiler

3. Plain

Material

Steel

Outside diameter

3'-3 3/4"

Length of plain part

top

3'-11"

Thickness of plates

crown

3"

Description of longitudinal joint

Weld

No. of strengthening rings

One

Working pressure of furnace by the rules

195 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

3/32"

Back

3/32"

Top

3/32"

Bottom

7/8"

Pitch of stays to ditto: Sides

9 1/2" x 8 1/2"

Top

9' x 7 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

181 lbs

Material of stays

Steel

Area at

smallest part

203 sq

Area supported by each stay

82.05 sq

Working pressure by rules

223 lbs

End plates in steam space: Material

Steel

Pitch of stays

18 1/2" x 16 1/4"

How are stays secured

Nuts & Washers

Working pressure by rules

182 lbs

Material of stays

Steel

Area at smallest part

Area supported by each stay

309.8 sq

Working pressure by rules

186 lbs

Material of Front plates at bottom

Steel

Thickness

1 1/2"

Material of

Lower back plate

Steel

Thickness

29"

Greatest pitch of stays

15" x 8 1/4"

Working pressure of plate by rules

188 lbs

Diameter of tubes

3 1/2" ext.

Pitch of tubes

4 5/8" x 4 5/8"

Material of tube plates

Steel

Thickness: Front

1 1/2"

Back

3/32"

Mean pitch of stays

11 9/16"

Pitch across wide

water spaces

14 1/2"

Working pressures by rules

181 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

2 in 1, 8 3/4" x 4"

Length as per rule

30 1/2"

Distance apart

9"

Number and pitch of Stays in each

3 in No. 7 1/2"

Working pressure by rules

194 lbs

Steam dome: description of joint to shell

✓

% 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

✓

SUPERHEATER. 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

CAMMELL LAIRD AND COMPANY LIMITED.

The foregoing is a correct description,

- 2 JUN 1920

J. W. L. and

LOCAL SECRETARY

Manufacturer.

Dates

During progress of

work in shops - -

1919 Dec 23, 30 1920 Jan 5, 21, 27. Feb. 2, 11, 17, 25. Mar

Is the approved plan of boiler forwarded herewith

Yes!

while

During erection on

board vessel - - -

Total No. of visits

18.

GENERAL REMARKS

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

The Main Boiler of this Vessel has now been built under Special Survey and in accordance with the approved plans & Secretary's letter (E) dated 5th Nov. 1919. The workmanship and materials are of good quality and when tested to twice working pressure was found satisfactory in every respect.

Survey Fee

Travelling Expenses (if any)

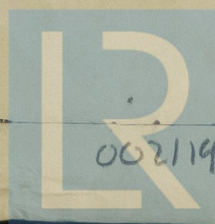
When applied for,

When received,

Committee's Minute

Assigned

- See Machinery Report -



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