

REPORT ON BOILERS

No. 79060

Received at London Office

SAT. 24 MAY 1919

Date of writing Report

191

When handed in at Local Office

21 MAY 1919

Port of LIVERPOOL

No. in Survey held at
Reg. Book.

Birkenhead

Date, First Survey

Aug 14th 1918

Last Survey

May 9th 1919

(Number of Visits

83

Gross

2436

Tons

Net

1508

Master

Built at

Luton

By whom built

H. & C. Grayson Ltd.

When built

1919

Engines made at

Liverpool

By whom made

David Rollo & Sons

When made

1919

Boilers made at

Birkenhead

By whom made

Cammell, Laird & Co. Ltd.

When made

1919

Registered Horse Power

Owners

Shipping Controller

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

(Letter for record

S

Total Heating Surface of Boilers

4500 sq. ft.

Is forced draft fitted

No

No. and Description of

Boilers 2 - Cylindrical Multitubular

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

14/19, 7/4/19

No. of Certificates

2062, 2063

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

66 sq. ft.

No. and Description of

safety valves to each boiler 2 - Spring loaded

Area of each valve

7.07 sq. in.

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

No

Smallest distance between boilers or uptakes and bunkers or woodwork

4'6"

Inside

Mean dia. of boilers

14'9"

Length

11'3"

Material of shell plates

Steel

Thickness

1 3/8"

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

DR - Lap

long. seams

TR - double straps

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

8 3/4"

Lap of plates or width of butt straps

18 3/4"

Per centages of strength of longitudinal joint

rivets

87.8

Working pressure of shell by

plate

85.71

rules

181 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

Dished

No. and Description of Furnaces in each

boiler 3 - Corrugated Material

Steel

Outside diameter

3'11"

Length of plain part

top

✓

Thickness of plates

crown

9"

bottom

9"

Description of longitudinal joint

Weld

No. of strengthening rings

Working pressure of furnace by the rules

187 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

23 3/32"

Back

1 1/8"

Top

23 3/32"

Bottom

23 3/32"

Pitch of stays to ditto: Sides

10 1/2" x 9 3/4"

Back

9 1/2" x 9 1/2"

Top 10 1/2" x 9 1/4" stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

181 lbs

Material of stays

Steel

Area at

smallest part

2.03 sq. in.

Area supported by each stay

97.125 sq. in.

Working pressure by rules

188 lbs

End plates in steam space: Material

Steel

Thickness

1 3/32"

Pitch of stays

21 1/2" x 20"

How are stays secured

Nuts

Working pressure by rules

180 lbs

Material of stays

Steel

Area at smallest part

7.85 sq. in.

Area supported by each stay

430 sq. in.

Working pressure by rules

190 lbs

Material of Front plates at bottom

Steel

Thickness

1 1/32"

Material of

Lower back plate

Steel

Thickness

3 1/32"

Greatest pitch of stays

14 1/4" x 9 1/2"

Working pressure of plate by rules

220 lbs

Diameter of tubes

3 1/2" int.

Pitch of tubes

4 3/4" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

1 1/32"

Back

1 1/8"

Mean pitch of stays

14 1/4" x 9 1/2"

Pitch across wide

water spaces

14 1/4"

Working pressures by rules

188 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

2-7 3/4" x 3 1/4"

Length as per rule

29 1/2"

Distance apart

9 1/4"

Number and pitch of Stays in each

2 - 10 1/2"

Working pressure by rules

185 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

Safety Valve adjusting washers
Standard Boiler - 3 - 3/8" P. 3/8"
Port " " 2 - 1/4" P. 1/4"

The foregoing is a correct description,

CAMELL LAIRD AND COMPANY LIMITED

Manufacturer.

Dates

During progress of

work in shops - -

Is the approved plan of boiler forwarded herewith

Yes

while

During erection on

board vessel - -

Total No. of visits

42

building

board vessel - -

1918 Aug 14, Nov 18, 20, 21, 22, 26, 29, Dec 3, 4, 6, 10, 13, 17, 1919 Jan 6, 10, 14, 15, 20, 24, 27, 31, Feb 4, 12, 18, 20, 26, March 7, 14, 25, May 8, 9.

GENERAL REMARKS

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

These boilers have been constructed

under Special Survey in accordance with the approved plan and the Secretary's letters

(E) of 1st and 17th August 1918. The materials and workmanship are of good quality. When

tested by water to twice the working pressure they were found tight and satisfactory

in every respect.

Survey Fee

(F.E. fee)

£ 13 : 10 : 8

When applied for,

23 MAY 1919

Travelling Expenses (if any) £

When received,

28/6/1919

B. P. Bedford

J. M. 20/19

Engineer

Surveyor to Lloyd's Register of Shipping.

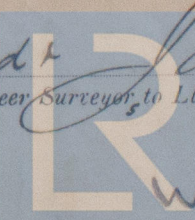
Committee's Minute

LIVERPOOL

23 MAY 1919

Assigned

See machinery report attached

Lloyd's Register of Shipping
W617-0009
Foundation