

Rpt. 5a.

Date of writing Report

# REPORT ON BOILERS

No. 52681

WFD. 14 SEP. 1921

18 SEP 1921

Received at London Office

Port of

LIVERPOOL

Date, First Survey

Feb'y 17<sup>th</sup>

Last Survey

Sept'r 2<sup>nd</sup>

1921

(Number of Visits 28)

Master

Built at

Renfrew

By whom built

W. Simons &amp; Co. Lim.

Tons

Gross 1891

Net 1161

When built 1903.6

Engines made at

Renfrew

By whom made

W. Simons &amp; Co. Lim.

Boilers made at

Birkenhead

By whom made

Cammell Laird &amp; Co. Lim.

When made 1903.

Registered Horse Power

228

Owners

Union Government of Africa

When made 1921.

Port belonging to E. London.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

(Letter for record S)

Total Heating Surface of Boilers

4020  $\text{sq. ft.}$ 

Is forced draft fitted

No. and Description of

Boilers 2 in 1<sup>st</sup> Multitubular Cylindrical Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

No. of Certificate

2183

Can each boiler be worked separately

Area of fire grate in each boiler

Date of test

5-7-21

safety valves to each boiler

Area of each valve

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

Material of shell plates

Steel

Thickness

1 1/4"

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 butt

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

9'104"

width of butt straps

19 1/2"

Per centages of strength of longitudinal joint

rivets 88.3%

Working pressure of shell by

rules 194.7 lbs. Size of manhole in shell

16" x 12"

Size of compensating ring

McNeil

No. and Description of Furnaces in each

boiler 3 in 1<sup>st</sup> Deighton's Material

Steel

Outside diameter

48 1/4"

Length of plain part

top

bottom

Thickness of plates

crown 9/16"

Description of longitudinal joint

Welds

No. of strengthening rings

Working pressure of furnace by the rules

1826 lbs.

Combustion chamber

plates: Material

Steel

Thickness: Sides

7/8"

Back

7/8"

Top

7/8"

Bottom

Pitch of stays to ditto

Sides 8" x 9"

Back 8" x 9"

Top 10" x 7"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

181 lbs.

Material of stays

Steel

Area at

smallest part

1.73"

Area supported by each stay

72.25"

Working pressure by rules

191.5

End plates in steam space: Material

Steel

Thickness

1 1/8"

Pitch of stays

18 1/2" x 21"

How are stays secured

Double nuts

Working pressure by rules

185 lbs.

Material of stays

Steel

Area at smallest part

7.66"

Area supported by each stay

441"

Working pressure by rules

180 lbs.

Material of Front plates at bottom

Steel

Thickness

1"

Material of

Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

13 3/4"

Working pressure of plate by rules

209 lbs.

Diameter of tubes

3 1/2" excl.

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

1"

Back

13/16"

Mean pitch of stays

11 1/4"

water spaces

13 3/4"

Working pressures by rules

187 lbs.

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

8 1/2" x 1 1/2"

Length as per rule

31 1/4"

Distance apart

10"

Number and pitch of Stays in each

3 in No. 7"

Working pressure by rules

180 lbs.

Steam dome: description of joint to shell

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

% of strength of joint

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

## SUPERHEATER.

Type

Date of Approval of Plan

Date of Test

Tested by Hydraulic Pressure to

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

CANNEL foregoing is a correct description,

Manufacturer.

Dates of Survey: During progress of work in shops - Feb 17, 24, 25, Mar 1, 14, 23, Apr 1, 6, 8, 12, 14, 21, 29, May 10, 18, 24, 26, Is the approved plan of boiler forwarded herewith

while building: During erection on board vessel - June 4, 12, 20, 28, July 5, 12, 15, 18, Sept 2.

LOCAL SECRETARY.

Yes

Total No. of visits 28

## GENERAL REMARKS

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

under Special Survey & in accordance with the approved plan. Secretary's letter (E) dated 8<sup>th</sup> September 1920. The workmanship & materials are of good quality & when tested to twice the working pressure were found satisfactory in every respect. This boiler has been shipped to the South Africa (East London) to be fitted on board.

Survey Fee

£ 25: 18: 0

When applied for,

- 8 SEP 1921

Travelling Expenses (if any) £

When received,

5-11-21

Committee's Minute LIVERPOOL

13 SEP 1921

Assigned

Transmitted to London.

Am Dykes & Dykes & Co. Ltd.  
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation