

REPORT ON BOILERS.

THU. MAY 27 1920
No. 27820

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Date of writing Report

181

When handed in at Local Office

26 MAY 1920

Port of

Received at London Office

SUNDERLAND

No. in Survey held at
Reg. Book.

SUNDERLAND

Date, First Survey

13 Feb 1920

Last Survey

14 May 1920

1920

on the *Messrs G. Clark's 110 3/4 Boiler*S. *Emlynton*

Tons

Gross

Net

Master

Built at *Lowestoft*

By whom built

Chambers Ltd

No. 502

When built

1920

Engines made at

S. Shields

By whom made

*Messrs G. J. Gray*No. *607*

When made

1920

Boilers made at

Sunderland

By whom made

*Messrs G. Clark Ltd*No. *110 3/4*

When made

1920

Registered Horse Power

Owners

Emlyn Line Ltd

Port belonging to

Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

Spencer & Sons

(Letter for record

S)

Total Heating Surface of Boilers

1844 sq ft

Is forced draft fitted

no

No. and Description of

Boilers *One Single Ended*

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

14.5.20

No. of Certificate

3687

Can each boiler be worked separately

✓

Area of fire grate in each boiler

No. and Description of

safety valves to each boiler

2 Spring Loaded

Area of each valve

5.9 sq in

Pressure to which they are adjusted

185 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

18 in

Mean dia. of boilers

14 in

Length

10-6 in

Material of shell plates

S

Thickness

1 1/8 in

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

Lap & 1/4 in

long. seams

d. 1 1/2 in

Diameter of rivet holes in long. seams

1 3/8 in

Pitch of rivets

8 3/8 in

Lap of plates or width of butt straps

18 in

Per centages of strength of longitudinal joint

87

Working pressure of shell by

rules

182

Size of manhole in shell

12 x 16

Size of compensating ring

8 x 1 3/8 in

No. and Description of Furnaces in each

boiler

3 Nightingale

Material

S

Outside diameter

3-7 in

Length of plain part

top -

Thickness of plates

*crown 3/32**bottom 3/64*

Description of longitudinal joint

Welded

No. of strengthening rings

23

Working pressure of furnace by the rules

182

Combustion chamber

plates: Material

S

Thickness: Sides

23/32

Back

1/16

Top

23/32

Bottom

23/32

Pitch of stays to ditto: Sides

9 1/4 x 9 1/2

Back

9 3/4 x 8 7/8

Top

9 x 9 1/4

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

188

Material of stays

S

Area at

smallest part

2.03 sq in

Area supported by each stay

86 sq in

Working pressure by rules

207

End plates in steam space: Material

S

Thickness

1 1/32 in

Pitch of stays

22 + 17 1/2

How are stays secured

d. 1/2 in

Working pressure by rules

184

Material of stays

S

Area at smallest part

6.49 sq in

Area supported by each stay

370 sq in

Working pressure by rules

182

Material of Front plates at bottom

S

Thickness

13/16 in

Material of

*lower back plate**S*

Pitch of tubes

4 1/2 x 4 3/8

Material of tube plates

S

Thickness: Front

13/16 in

Back

3/4 in

Mean pitch of stays

11 1/4 x 5 3/4

Pitch across wide

water spaces

14 1/4 d. 1/2 in

Working pressures by rules

262

Girders to Chamber tops: Material

S

Depth and thickness of

*girder at centre**7 3/8 x 1 3/4 in*

Length as per rule

30

Distance apart

9 in

Number and pitch of Stays in each

2, 9 1/4 in

Working pressure by rules

181

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

—

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

—

Is Easing Gear fitted

*—**—*

Diameter of Safety Valve

—

Pressure to which each is adjusted

—

Is Easing Gear fitted

*—**—**—**—**—**—*

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED

W. G. Clark

Manufacturer.

Dates

During progress of

*✓**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20**12.2.20*

Survey

while

working in shops

—

During erection on

board vessel

*—**—**—**—**—**—**—**—**—**—**—*

Building

Is the approved plan of boiler forwarded herewith

*✓**—**—**—**—**—**—**—**—**—**—**—**—**—**—*

Total No. of visits

*—**—**—**—**—**—**—**—**—**—**—**—**—**—**—**—*

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

This Boiler has been built under special survey, the materials and workmanship are sound and good. It was built to the order of Messrs G. J. Gray, S. Shields engine No 608

Survey Fee

*£ 6 : 3**—**—**—*