

SAT. FEB. 24 1923

REPORT ON BOILERS.

No. 76347

Received at London Office

SAT. 20 JAN. 1923

Date of writing Report

19

When handed in at Local Office

18/1/23

Port of

NEWCASTLE ON TYNE

No. in Survey held at

Date, First Survey 11 Sept. 1922 Last Survey 15 Jan. 1923

Reg. Book.

on the Main boiler for Messrs Palmer & Co. Ltd. 1007 Smith's Dock S.S. No. 23

Master

used

Built at

Middlesbrough

By whom built

Smith's Dock.

When built

Engines made at

By whom made

When made

Boilers made at

Hebburn

By whom made

Palmer & Co. Ltd.

When made

Registered Horse Power

Owners

Port belonging to

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

J. Spencer & Co.

(Letter for record

5)

Total Heating Surface of Boilers

1830 sq ft

Is forced draft fitted

No. and Description of

Boilers

One boiler Smith's

Working Pressure

180 lbs

Tested by hydraulic pressure to

Date of test 15/1/23

No. of Certificate

9714

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of

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

Mean dia. of boilers 14'-0" Length 10'-9"

Material of shell plates

Steel

Thickness

1 1/2"

Range of tensile strength 28 to 32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.L.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

8 1/2"

Lap of plates or width of butt straps

1'-6 1/8"

Per centages of strength of longitudinal joint

rivets 86%

Working pressure of shell by

rules

182.4

Size of manhole in shell

16" x 12"

Size of compensating ring

2'-4" x 2'-8" x 1 1/2"

No. and Description of Furnaces in each

boiler

3 plain

Material

Steel

Outside diameter

3'-5 1/4"

Length of plain part

top 6'-3 1/8"

Thickness of plates

crown 3 3/4"

Description of longitudinal joint

Welded

No. of strengthening rings

Working pressure of furnace by the rules

182

Combustion chamber

plates: Material

Steel

Thickness: Sides

3 1/2"

Back

3 1/2"

Top

3 1/2"

Bottom

1"

Pitch of stays to ditto: Sides

8" x 9 1/4"

Back

9" x 9"

Top

8 1/2" x 9 1/4"

smallest part

1 1/2"

Area supported by each stay

81"

Working pressure by rules

223

End plates in steam space: Material

Steel

Pitch of stays

17 1/2" x 18"

How are stays secured

D.N.W.

Working pressure by rules

180

Material of stays

Steel

Area supported by each stay

312.5"

Working pressure by rules

212

Material of Front plates at bottom

Steel

Thickness

1 1/8"

Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

14" x 9"

Working pressure of plate by rules

226

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 1/8"

Material of tube plates

Steel

Thickness: Front

1 1/8"

Back

3/4"

Mean pitch of stays

water spaces

14 1/2"

Working pressures by rules

188 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

9" x 1 1/2"

Length as per rule

2'-9 1/2"

Distance apart

8 1/2"

Number and pitch of Stays in each

2 @ 9 1/2"

Working pressure by rules

211

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

Palmer's Shipbuilding & Iron Co., Ltd.

The foregoing is a correct description,

Manager, Hebburn Boiler Shop & Foundry, Manufacturer.

Dates of Survey

During progress of work in shops - -

while building

During erection on board vessel - - -

1922

Sept. 11, 26, Oct. 3, 17, 24, Nov. 23, Dec. 12, 19, 20, 21, 22, 28, Jan. 5, 11, 15.

Is the approved plan of boiler forwarded herewith

Total No. of visits

15

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

This boiler has been built under special survey & the materials & workmanship are good. On completion it was tested by hydraulic pressure to 320 lbs & found sound & tight. It is stated the boiler is intended for a vessel building by Messrs Smith's Dock, Middlesbrough.

Survey Fee

...

...

£

12-4-0

When applied for,

19/1/23

1923

Travelling Expenses (if any) £

:

:

When received,

26/2/23

1923

Committee's Minute

TUE. 27 FEB. 1923

Engineer Surveyor to Lloyd's Register of Shipping.

Assigned