

Palmer's Coy. Ltd. Hebburn - main Boiler 983

REPORT ON BOILERS.

NEWCASTLE-ON-TYNE No. 75011

No. 73822

FRI. NOV. 19 1920

Date of writing Report

10

When handed in at Local Office

10

Port of

NEWCASTLE-ON-TYNE

No. in

Survey held at

Hebburn

Reg. Book.

Date, First Survey 20th Feb 1920Last Survey 29th Jan 1920

on the

R.D. Harman & Sons SS No. 2

(Number of Visits

Gross
Tons
Net

5

Master

Built at

By whom built

R.D. Harman & Sons

When built

Engines made at North Shields

By whom made

Shields Engineering & Dry Dock Co. Ltd

When made

Boilers made at Hebburn

By whom made

Palmer's S. & J. Coy. Ltd 983

When made

1920

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel Spencer & Sons Ltd

(Letter for record S)

Total Heating Surface of Boilers 1086 sq ft

Is forced draft fitted

No. and Description of

Boilers one S. & J. Coy. Ltd multitubular

Working Pressure 140 lb

Tested by hydraulic pressure to 280 lb

Date of test 29.9.20

No. of Certificate 9469

Can each boiler be worked separately

Area of fire grate in each boiler 34 sq ft

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

outside

Mean dia. of boilers 11'-6"

Length 10'-0"

Material of shell plates Steel

Thickness 3/4"

Range of tensile strength 29/33 tons

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams 2R Lap

long. seams T. Rivet

8BS

Diameter of rivet holes in long. seams 7/8"

Pitch of rivets 2 Rows 5 1/2"

Top of plates or width of butt straps 1'-2"

Per centages of strength of longitudinal joint

rivets 86.7%

Working pressure of shell by

rules 140-3 lb

Size of manhole in shell 16 x 12

Size of compensating ring 7 x 3/4"

No. and Description of Furnaces in each

boiler two plain

Material Steel

Outside diameter 3'-6"

Length of plain part top 6'-1"

Thickness of plates

crown 11/16"

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 150 lb

Combustion chamber

plates: Material Steel

Thickness: Sides 19/32"

Back 19/32"

Top 19/32"

Bottom 13/16"

Pitch of stays to ditto: Sides 9 3/4 x 8 3/4"

Back 9 x 9"

Top 10 1/2 x 8 1/2" If stays are fitted with nuts or riveted heads Nuts

Working pressure by rules 149 lb

Material of stays Steel

Area at

smallest part 1-45"

Area supported by each stay 81"

Working pressure by rules 143 lb

End plates in steam space: Material Steel

Thickness 7/8"

Pitch of stays 16 x 15"

How are stays secured 2 rows

Working pressure by rules 151 lb

Material of stays Steel

Area at smallest part 3-26"

Area supported by each stay 240"

Working pressure by rules 141 lb

Material of Front plates at bottom Steel

Thickness 7/8"

Material of

Lower back plate Steel

Thickness 7/8"

Greatest pitch of stays 14" x 9"

Working pressure of plate by rules 140 lb

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2 x 4 1/2"

Material of tube plates Steel

Thickness: Front 7/8"

Back 3/4"

Mean pitch of stays 13 1/2 x 9"

water spaces 13 3/4"

Working pressures by rules 145 lb

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre 8 1/2 x 1 3/8"

Length as per rule 30" 29 1/2"

Distance apart 10 1/2"

Number and pitch of Stays in each 2 of 8" pitch

Working pressure by rules 150 lb

Steam dome: description of joint to shell None

% 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 None

Date of Approval of Plan

Is 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,

J. Cameron

Manufacturer.

Manager, Hebburn Boiler Shop & Foundry

Is the approved plan of boiler forwarded herewith

with Duplicate B

Total No. of visits

7

-981- No. 73821

Dates of Survey

During progress of work in shops - - - 20.26 Aug. 6. Sep. 16. 20. 27. 29

while building - - - During erection on board vessel - - -

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

The Boilers built under Special Survey the material and workmanship found good and efficient.

The Boilers tested under 280 lb hydraulic pressure at the makers works and found satisfactory

Survey Fee ... £ 3 : 12

When applied for, 18 Nov 1920

Travelling Expenses (if any) £ :

When received, 28 Dec 1920

Committee's Minute

FRI. DEC. 9 1921

Engineer Surveyor to Lloyd's Register of Shipping.

Assigned

Leonard Challcross

Engineer Surveyor to Lloyd's Register of Shipping.

002435-002441-0169

Lloyd's Register

Foundation