

Rpt. 5a.

REPORT ON BOILERS.

No. 25139

SAT. FEB. 3-1912

Received at London Office

Date of writing Report

19

When handed in at Local Office

2.1.1912

Port of

SUNDERLAND.

No. in Survey held at

SUNDERLAND.

Date, First Survey

30 Nov.

Last Survey

12th Mar. 1912

Reg. Book.

on the

S.D.

"ELVET"

(Number of Visits)

Gross 1289

Tons

Net 678

Master

Built at

Newcastle

By whom built

W. Dobson & Co. (S.S. 1471)

When built

1912

Engines made at

Newcastle

By whom made

North Eastern Marine Eng. Co. Ltd

when made

1912

Boilers made at

Sunderland

By whom made

North Eastern Marine Eng. Co. Ltd (2058)

when made

1912

Registered Horse Power

Owners

Sharp & Co.

Port belonging to North Shields

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

J. Spencer & Sons Ltd.

(Letter for record

(5))

Total Heating Surface of Boilers

3524 sq. ft.

Is forced draft fitted

No.

No. and Description of

Boilers

Two single ended

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 Date of test 23-1-12

No. of Certificate

2990

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

42 sq. ft.

No. and Description of

safety valves to each boiler 2 direct spring

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-7"

Mean dia. of boilers

13'-9 1/2"

Length

10'-6"

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

D.R.

long. seams

T.R.D.P.D.

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

8 1/2"

Lap of plates or width of butt straps

18"

Per centages of strength of longitudinal joint

rivets 85.4

plate

86.5

Working pressure of shell by

rules

180 lbs.

Size of manhole in shell

16 x 18"

Size of compensating ring

9 1/2 x 1 3/8"

No. and Description of Furnaces in each

boiler

Three Plain

Material

Steel

Outside diameter

38 3/4"

Length of plain part

top 4 3/4"

bottom

Thickness of plates

crown 2 3/8"

bottom 3/8"

Description of longitudinal joint

Weld

No. of strengthening rings

Working pressure of furnace by the rules

182 lbs.

Combustion chamber

plates: Material

Steel

Thickness: Sides

2 3/8"

Back

1 1/2"

Top

2 3/8"

Bottom

2 3/8"

Pitch of stays to ditto: Sides

8 1/4 x 10 3/4"

Back

9 1/2 x 9"

Top

8 1/4 x 10 3/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

181 lbs.

Material of stays

Steel

Diameter at

smallest part

1 5/16"

Area supported by each stay

89.4 sq. in.

Working pressure by rules

180 lbs.

End plates in steam space: Material

Steel

Thickness

1 5/16"

Pitch of stays

2 1/4 x 1 3/8"

How are stays secured

D.N. Wash

Working pressure by rules

186 lbs.

Material of stays

Steel

Diameter at smallest part

3.03"

Area supported by each stay

416 sq. in.

Working pressure by rules

180.5 lbs.

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of

Lower back plate

Steel

Thickness

3/8"

Greatest pitch of stays

14 1/4 x 9"

Working pressure of plate by rules

186 lbs.

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2 x 4 3/4"

Material of tube plates

Steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

10.6"

Pitch across wide

water spaces

14 1/2"

Working pressures by rules

185 lbs.

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

9 x 1 1/2"

Length as per rule

30"

Distance apart

10 3/4"

Number and pitch of Stays in each

2 @ 8 1/4"

Working pressure by rules

184 lbs.

Superheater or Steam chest: how connected to boiler

line

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

The foregoing is a correct description,

NORTH EASTERN MARINE ENGINEERING CO. LTD.

Manufacturer.

J. Spencer & Sons Ltd.

10

Is the approved plan of boiler forwarded herewith

yes.

Total No. of visits

10

See Newcastle Report 62072

During progress of

work in shops - - -

1911 Nov. 30 Dec. 9 12 20 29 Jan. 5 10 17 22 23

During erection on

board vessel - - -

See Newcastle Report 62072

Survey Fee

£ 10 0 0

When applied for

2.1.1912

Travelling Expenses (if any) £

When received

APR 4 1912

William D. Butler, Engineer

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUE. APR. 16. 1912

Assigned

see minute

on nve. 7. E. Rpt 62072

W218-0076

Lloyd's Register Foundation