

REPORT ON BOILERS.

No. 56475

FHL 16 APR 1909

Received at London Office

Date of writing Report

10

When handed in at Local Office

15 APR 1909

Port of

Newcastle on Tyne

No. in Survey held at

North & South Shields

Date, First Survey

12th Jan 1909

Last Survey

5th April

1909

Reg. Book.

on the

s/s Chira

No. 403

(Number of Visits)

Gross 108

Tons

Net 46

Master

Built at

North Shields

By whom built

Smith & Dwyer Ltd (403)

When built

1909

Engines made at

North Shields

By whom made

Shields Engineering & Dry Dock Ltd

when made

1909

Boilers made at

S. Shields

By whom made

J. T. Eltringham & Co (Boiler No 1619)

when made

1909

Registered Horse Power

38

Owners

W. Keswick

Port belonging to

London

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

(Letter for record)

S

Total Heating Surface of Boilers

745 sq ft

Is forced draft fitted

No

No. and Description of

Boilers

One Multitubular Cyb

Working Pressure

140 lbs

Tested by hydraulic pressure to

280 lbs

Date of test

25-2-09

No. of Certificate

7822

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

30.9 sq ft

No. and Description of

safety valves to each boiler

two direct spring

Area of each valve

3.976 sq in

Pressure to which they are adjusted

145 lb

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

14 in

Mean dia. of boilers

9-6 25/32 in

Length

9-7 15/16 in

Material of shell plates

Steel

Thickness

25/32 in

Range of tensile strength

28 3/4-32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L. D. R.

long. seams

L. T. R.

Diameter of rivet holes in long. seams

13/16 in

Pitch of rivets

4 3/4 in

Lap of plates or width of butt straps

8 5/16 in

Per centages of strength of longitudinal joint

rivets

75.7%

plates

75%

Working pressure of shell by

rules

144 lbs

Size of manhole in shell

16 x 12 in

Size of compensating ring

7 1/2 x 25/32 in

No. and Description of Furnaces in each

boiler

Two plain

Material

Steel

Outside diameter

35 in

Length of plain part

top 73 in

bottom 80 in

Thickness of plates

crown 5/8 in

bottom 5/8 in

Combustion chamber

Description of longitudinal joint

Yes

No. of strengthening rings

Yes

Working pressure of furnace by the rules

150 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

19/32 in

Back

19/32 in

Top

19/32 in

Bottom

7/8 in

Pitch of stays to ditto: Sides

10 x 8 in

Back

9 1/2 x 8 1/2 in

Top

10 1/2 x 7 3/4 in

If stays are fitted with nuts or riveted heads

No

Working pressure by rules

143 lbs

Material of stays

Steel

Diameter at

smallest part

1 15/32 in

Area supported by each stay

87.375 sq in

Working pressure by rules

165 lbs

End plates in steam space: Material

Pitch of stays

16 1/2 x 20 1/2 in

How are stays secured

D. N. T. W.

Working pressure by rules

140 lbs

Material of stays

Steel

Diameter at smallest part

2 7/32 in

Area supported by each stay

328.375 sq in

Working pressure by rules

153 lbs

Material of Front plates at bottom

Lower back plate

Steel

Thickness

3/4 in

Greatest pitch of stays

11 x 9 1/2 in

Working pressure of plate by rules

142 lbs

Diameter of tubes

2 3/4 in

Pitch of tubes

8 1/8 x 4 in

Material of tube plates

Steel

Thickness: Front

27/32 in

Back

11/16 in

Pitch of tubes

8 1/8 x 4 in

Material of tube plates

Steel

Thickness: Front

27/32 in

Back

11/16 in

Mean pitch of stays

10 3/16 in

Pitch across wide

water spaces

13 1/4 in

Working pressures by rules

144 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

Working pressure by rules

141 lbs

Superheater or Steam chest: how connected to boiler

—

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,

J. T. Eltringham

Manufacturer.

Is the approved plan of boiler forwarded herewith

Total No. of visits 11 +

Dates of Survey

1909

Jan. 12-18-19-25 Feb. 3-10-12-15-18-22-25

See Machinery report

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

This boiler has been built under special survey, the materials & workmanship are sound and good.

The Boiler fitted up on board, tested under steam & found satisfactory.

Survey Fee

When applied for,

19

Travelling Expenses (if any) £

When received,

19

Committee's Minute

TUES. 20 APR 1909

Assigned see minute on attached report

J. T. Eltringham
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.Lloyd's Register
Foundation

W1406-0062