

REPORT ON BOILERS.

No. 31424

Received at London Office

4 JUN 1934

Date of writing Report

1934

When handed in at Local Office

1934

Port of

Sunderland.

No. in
g. Book.

Survey held at

Sunderland

Date, First Survey March 5th

Last Survey 1st June

1934

on the

S/S "LONDON TRADER"

(Number of Visits

Tons

Gross

Net

Master

Built at Newcastle

By whom built

R. W. Hawthorn Leslie & Co.

Yard No. 594

When built 1934

Engines made at

Sunderland

By whom made

North Eastern Mar. Eng. Co. Ltd.

Engine No. 2809

When made 1934

Boilers made at

Sunderland

By whom made

North Eastern Mar. Eng. Co. Ltd.

Boiler No. 2809

When made 1934

Indicated Horse Power

103.

Owners

The Trade Wharf Co. Ltd.

Port belonging to

London.

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record

S

Total Heating Surface of Boilers

1800 sq. ft.

Is forced draught fitted

no.

Coal or Oil fired

Coal.

No. and Description of Boilers

2 multitubular return tube Single ended

Working Pressure

200

Tested by hydraulic pressure to

350

Date of test

9.5.34

No. of Certificate

4144

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

23.5 sq. ft.

No. and Description of safety valves to each boiler

2 Lever Spring.

Area of each set of valves per boiler

per Rule

2.66 sq. ft.

Pressure to which they are adjusted

200

Are they fitted with easing gear

Yes.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

no donkey boiler.

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-9"

Is oil fuel carried in the double bottom under boilers

no.

Smallest distance between shell of boiler and tank top plating

open floor.

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

10'-4 5/32"

Length

10'-3"

Shell plates: Material

Steel

Tensile strength

29-33.

Thickness

59/64"

Are the shell plates welded or flanged

no.

Description of riveting: circ. seams

end

D.R. Lap

g. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1"

Pitch of rivets

3 1/8"

Percentage of strength of circ. end seams

plate

68%

rivets

43.2%

Percentage of strength of circ. intermediate seam

plate

85.96%

Percentage of strength of longitudinal joint

plate

88.89%

rivets

89.64%

Working pressure of shell by Rules

200.7.

Thickness of butt straps

3/4"

inner

1/8"

No. and Description of Furnaces in each Boiler

Two corrugated (Leighton).

Material

Steel

Tensile strength

26-30

Smallest outside diameter

2'-9 23/32"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

3 1/64"

Description of longitudinal joint

welded.

Dimensions of stiffening rings on furnace or g. bottom

Working pressure of furnace by Rules

206.

End plates in steam space: Material

Steel

Tensile strength

26-30

Thickness

1"

Pitch of stays

1'-3 3/8" x 1'-3"

How are stays secured

Double nuts.

Working pressure by Rules

200.

End plates: Material

front

back

Steel

Tensile strength

26-30

Thickness

25/32"

238.

Can pitch of stay tubes in nests

10.4"

Pitch across wide water spaces

14 1/2"

Working pressure

front

back

202.

Orders to combustion chamber tops: Material

Steel

Tensile strength

28-32.

Depth and thickness of girder

centre

1 3/4" x 1 3/4"

Length as per Rule

30"

Distance apart

9 1/2"

No. and pitch of stays

each

2 @ 9 1/2"

Working pressure by Rules

203.

Combustion chamber plates: Material

Steel.

Tensile strength

26-30.

Thickness: Sides

3/4"

Back

23/32"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

10" x 9 1/2"

Back

10" x 9"

Top

9 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts.

Working pressure by Rules

208. 200.5. 220

Front plate at bottom: Material

Steel

Tensile strength

26-30.

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26-30

Thickness

1"

Pitch of stays at wide water space

14 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts.

Working Pressure

284.

Main stays: Material

Steel

Tensile strength

28-32.

meter

At body of stay.

2 3/8"

No. of threads per inch

6

Area supported by each stay

15" x 15 3/8"

meter

Over threads

2 3/4"

Screw stays: Material

Steel

Tensile strength

26-30.

meter

At turned off part.

2"

1 7/8"

1 3/4"

No. of threads per inch

9.

Area supported by each stay

12" x 10"

meter

Over threads

2"

1 7/8"

1 3/4"

No. of threads per inch

9.

Area supported by each stay

11 3/4" x 9"

meter

Over threads

2"

1 7/8"

1 3/4"

No. of threads per inch

9.

Area supported by each stay

10" x 9"

meter

Over threads

2"

1 7/8"

1 3/4"

No. of threads per inch

9.

Area supported by each stay

10" x 9"

meter

Over threads

2"

1 7/8"

1 3/4"

No. of threads per inch

9.

Area supported by each stay

10" x 9"

meter

Over threads

206
202
201.

Working pressure by Rules 201. Are the stays drilled at the outer ends *no.* Margin stays: Diameter { At turned off part, 1 1/8" ✓
or Over threads

No. of threads per inch 9. Area supported by each stay 11 3/4 x 9" ✓ Working pressure by Rules 202. ✓

Tubes: Material *Steel* External diameter { Plain 3 1/4" ✓ Stay 3 1/4" ✓ Thickness { 8 WG. 1/4" 5/16" 3/8" No. of threads per inch 9. ✓

Pitch of tubes 4 1/2 x 4 1/2" ✓ Working pressure by Rules 205. 201. 200-5. Manhole compensation: Size of opening in shell plate 16" x 12" ✓ Section of compensating ring 2' 11" x 2' 4" x 1 1/16" ✓ No. of rivets and diameter of rivet holes 32 @ 1 3/16" ✓

Outer row rivet pitch at ends 8" ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material *none.*

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays

Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater *none.* Manufacturers of { Tubes Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes.*

The foregoing is a correct description FOR THE NORTH EASTERN MARINE ENGINEERING Co. Ltd. Manufacturer *Yes.*

Dates of Survey { During progress of work in shops - - - Please see Machinery Report. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel - - - Total No. of visits

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

These boilers have been Constructed under Special Survey in accordance with the approved Plan & the rules of the Society.

The materials & workmanship are good. On completion the boilers have been satisfactorily tested by hydraulic pressure in accordance with the Rules found tight & sound at that pressure. Securely fixed on board the vessel, rammed under steam. Safety valves adjusted to working pressure & accumulation test carried out satisfactorily.

In recommendation please see Machinery Rpt.

Survey Fee ... charged When applied for, 102
Travelling Expenses (if any) ... Machinery Rpt. When received, 192

J. H. Fraser

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 15 JUN 1934 TUE 26 JUN 1934
Assigned See F.E. Rpt.

