

REPORT ON BOILERS.

No. 96094

Received at London Office

APR - 2 1938

Date of writing Report

19

When handed in at Local Office

1141 1938

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at

Wallsend

Date, First Survey

30 July 1937

Last Survey

29 March 1938

on the

T.S. "TASAUERA"

(Number of Visits)

Gross

Tons

Net

Master

Built at

Ravenscroft Hill on Tees

By whom built

Furness Shipbuilding Co. Ltd.

Yard No.

285

When built

1938

Engines made at

Wallsend

By whom made

North Eastern Marine Eng Co. Ltd.

Engine No.

2895

When made

1938

Boilers made at

Wallsend

By whom made

North Eastern Marine Eng Co. Ltd.

Boiler No.

2895

When made

1938

Nominal Horse Power

318

Owners

Largo Shipping Co

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Co of Scotland

(Letter for Record

S

Total Heating Surface of Boilers

5130

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

Two single ended - multitubular

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

25-1-38

No. of Certificate

757

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

oil fired

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule

16.5

as fitted

22.08

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

Smallest distance between boilers or uptakes and bunkers or woodwork

3'-0"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

1'-6"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-6"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

1 1/4"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

L.D.R.

long. seams

Treble Riveted S.B.S.

Diameter of rivet holes in

circ. seams

1 5/16"

long. seams

1 5/16"

Pitch of rivets

3 3/4"

Percentage of strength of circ. end seams

plate

65

rivets

45.78

Percentage of strength of circ. intermediate seam

plate

-

rivets

Percentage of strength of longitudinal joint

plate

85.4

rivets

89.41

combined

88.7

Working pressure of shell by Rules

184 lbs

Thickness of butt straps

outer

1 1/2"

inner

1 1/8"

No. and Description of Furnaces in each Boiler

Three Brighton

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

47 3/8"

Length of plain part

top

-

bottom

-

Thickness of plates

crown

19/32"

bottom

-

Description of longitudinal joint

weld

Dimensions of stiffening rings on furnace or c.c. bottom

No

Working pressure of furnace by Rules

182 lbs

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 5/16"

Pitch of stays

22" x 19 3/4"

How are stays secured

Double nuts

Working pressure by Rules

184.8 lbs

Tube plates: Material

front

Steel

back

Steel

Tensile strength

26-30 tons

Thickness

15/16"

1 1/16"

Mean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

14 1/2"

Working pressure

front

227 lbs

back

190 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

at centre

9 x 2 @ 3/4"

Length as per Rule

36"

Distance apart

9"

No. and pitch of stays

in each

2 @ 10 7/8"

Working pressure by Rules

183.5 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

3/4"

Back

23/32"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

10 7/8" x 9 1/4"

Back

10" x 9 1/2"

Top

10 7/8" x 9"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

181 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Pitch of stays at wide water space

14 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

208 lbs

Main stays: Material

Steel

Tensile strength

26-32 tons

Diameter

At body of stay,

3"

or

Over threads

-

No. of threads per inch

6

Area supported by each stay

435 sq"

Working pressure by Rules

180 lbs

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

1 3/4"

or

Over threads

-

No. of threads per inch

9

Area supported by each stay

97.875 sq"

Working pressure by Rules 185 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 1/8"
No. of threads per inch 9 Area supported by each stay 116.875 sq" Working pressure by Rules 183 lbs
Tubes: Material Steel External diameter { Plain 2 1/2" Thickness { 5/16" & 3/8" No. of threads per inch 9
Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 216 lbs Manhole compensation: Size of opening in
END plate 16" x 12" Section of compensating ring — No. of rivets and diameter of rivet holes —
Outer row rivet pitch at ends — Depth of flange if manhole flanged 4" Steam Dome: Material —
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 forgings —
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 — forgings and 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,

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

Manufacturer.

Dates of Survey { During progress of work in shops - - }
while building { During erection on board vessel - - }

See Daily Report

Are the approved plans of boiler and superheater forwarded herewith Yes.
(If not state date of approval.)

Total No. of visits —

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. 'Boscan' Report No 95770.

GENERAL REMARKS

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

These boilers have been built under special survey, in accordance with the Rules and approved plan. The materials and workmanship are good, on completion they were tested by water pressure to 320 lbs per square inch and found tight and satisfactory; they have been fitted on board in an efficient manner, tried under steam and found satisfactory.

Survey Fee ...

Charged on

When applied for, 19

Travelling Expenses (if any) £

Indy Report

When received, 19

J. S. Seller

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 5 APR 1938

Assigned See J. E. Mearns Report



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Foundation