

REPORT ON BOILERS.

No. 85156

Received at London Office

10 JAN 1930

Newcastle-on-Tyne

of writing Report

192

When handed in at Local Office

8/11/30

Port of

in Survey held at

Book.

Date, First Survey

26 Feb 1929

Last Survey

6 Jan 1930

(Number of Visits)

Gross 4578

Tons Net 2795

on the

New Steel S.S. Wearwood

er

Built at

Wellington Quay

By whom built

Northumberland Dock Ltd

When built

1930

ines made at

Wallsend-on-Tyne

By whom made

North Eastern Marine & Co Ltd

Engine No.

When made

1930

ers made at

Wallsend-on-Tyne

By whom made

North Eastern Marine & Co Ltd

Boiler No.

When made

1930

inal Horse Power

437

Owners

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland

With contract Bergbau und Eisenhütten-Gesellschaft

(Letter for Record

S.

al Heating Surface of Boilers

5294

Is forced draught fitted

yes

Coal or Oil fired

Coal

and Description of Boilers

Two single ended

Working Pressure

200 lbs.

ted by hydraulic pressure to

350

Date of test

22-8-29

No. of Certificate

346

Can each boiler be worked separately

yes

a of Firegrate in each Boiler

58 1/2

No. and Description of safety valves to each boiler

Two spring loaded.

a of each set of valves per boiler

per Rule

15.54

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

yes

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

yes

allest distance between boilers or uptakes and bunkers or woodwork

2'-0"

Is oil fuel carried in the double bottom under boilers

No

allest distance between shell of boiler and tank top plating

2'-4"

Is the bottom of the boiler insulated

yes

gest internal dia. of boilers

15'-6 1/4"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

ckness

1 3/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

long. seams

1 1/16"

Pitch of rivets

4"

9 3/4"

centage of strength of circ. end seams

plate

64.7

rivets

46.45

Percentage of strength of circ. intermediate seam

plate

rivets

centage of strength of longitudinal joint

plate

85.25

rivets

90

Working pressure of shell by Rules

202.5 lbs.

ckness of butt straps

outer

inner

1 1/16"

No. and Description of Furnaces in each Boiler

Three corrugated (Heighon)

terial

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-8 1/4"

gth of plain part

top

bottom

Thickness of plates

crown

bottom

3/8"

Description of longitudinal joint

weld.

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

none

Working pressure of furnace by Rules

206 lbs.

d plates in steam space:

Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 13/32"

Pitch of stays

1'-10" x 1'-9"

w are stays secured

D nuts

Working pressure by Rules

200.6 lbs

be plates:

Material

Steel

Tensile strength

26 to 30 tons

Thickness

3/4"

in pitch of stay tubes in nests

9 13/16"

Pitch across wide water spaces

14 3/4 x 8 1/2"

Working pressure

front

back

208.5 lbs

208 lbs.

ders to combustion chamber tops:

Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

centre

2 @ 9" x 1/8"

Length as per Rule

2'-8"

Distance apart

11'8"

No. and pitch of stays

each

2 @ 9 1/2"

Working pressure by Rules

217 lbs.

Combustion chamber plates: Material

Steel

sile strength

26 to 30 tons

Thickness: Sides

25/32"

Back

3/4"

Top

25/32"

Bottom

1"

ch of stays to ditto: Sides

9 1/2 x 1 1/8"

Back

10 x 9 1/8"

Top

9 1/2 x 1 1/8"

Are stays fitted with nuts or riveted over

nuts

orking pressure by Rules

201 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

ckness

1"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

29/32"

ch of stays at wide water space

14 3/4 x 9 1/8"

Are stays fitted with nuts or riveted over

nuts

orking Pressure

213 lbs.

Main stays: Material

Steel

Tensile strength

28 to 32 tons

meter

At body of stay,

or

Over threads

No. of threads per inch

6

Area supported by each stay

462 sq"

orking pressure by Rules

200.5 lbs

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

meter

At turned off part,

or

Over threads

No. of threads per inch

9

Area supported by each stay

98.4 sq"

Working pressure by Rules 216 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 2" (At turned off part, or Over threads) 202.5 lbs

No. of threads per inch 9 Area supported by each stay 122.3 sq" Working pressure by Rules 204 lbs

Tubes: Material A. D. Steel External diameter 3" Thickness 8 wgs. No. of threads per inch 9

Pitch of tubes 4" x 4" x 4" Working pressure by Rules 204 lbs Manhole compensation: Size of opening none

Shell plate 16" x 17" Section of compensating ring none No. of rivets and diameter of rivet holes none

Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 4 3/8" 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 of rivets in outer row in dome connection to shell

Type of Superheater NORTH EASTERN SMOKE TUBE Manufacturers of MESSRS TUBES LTD

Number of elements 112 Material of tubes SOLID DRAWN STEEL Internal diameter and thickness of tubes 17mm & 25mm

Material of headers MILD STEEL Tensile strength 25-30 TONS/sq" Thickness 7/8" Can the superheater be shut off the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler YES

Area of each safety valve 3.1416 sq" Are the safety valves fitted with easing gear YES Working pressure of Rules 200 LBS/sq" Pressure to which the safety valves are adjusted 205 LBS/sq" Hydraulic test pressure of tubes 1500 LBS/sq" (Forgings castings) 600 LBS/sq" and after assembly in place 500 LBS/sq" Are drain cocks or valves to free the superheater from water where necessary YES

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.
The foregoing is a correct description,
W. A. Smith SECRETARY

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

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

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

See Machinery report.

Survey Fee ... £ : ✓ : When applied for, 192

Travelling Expenses (if any) £ : ✓ : When received, 192

William Butler
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 17 JAN 1930

Assigned See other J.E. Rpt.