

REPORT ON BOILERS.

No. 85156

June 5. 11
30. Oct. 13.

Received at London Office 10 JAN 1930

of writing Report

192

When handed in at Local Office

8/11 1930

Port of

Newcastle-on-Tyne

Survey held at

Wallsend-on-Tyne

Date, First Survey

26 Feb 1929

Last Survey

6 Jan 1930

Book

on the

New Steel S.S. Wearwood

(Number of Visits)

Gross 4578
Net 2795

er

Built at

Wilmington Quay

By whom built

Northumberland Iron Works 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 works at Bergbau und Eisenhütten-Gesellschaft

(Letter for Record)

S.

al Heating Surface of Boilers

5294 sq ft

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

ea of Firegrate in each Boiler

58 sq ft

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

and D.R

i. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. 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 85.25

rivets 90

centage of strength of longitudinal joint

plate 88.5

combined 88.5

Working pressure of shell by Rules

202.5 lbs.

ckness of butt straps

outer 1 1/16"

inner 1 3/16"

No. and Description of Furnaces in each Boiler

Three corrugated (Heighton)

terial

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-8 1/4"

gth of plain part

top 1 1/8"

bottom 1 1/8"

Thickness of plates

crown 5/8"

bottom 5/8"

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

front 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 208.5 lbs

back 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

isile strength

26 to 30 tons

Thickness: Sides

2 5/32"

Back

3/4"

Top

2 5/32"

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

2 9/32"

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,

3/4"

No. of threads per inch

6

Area supported by each stay

462 sq in

orking pressure by Rules

200.5 lbs

Screw stays:

Material Steel

Tensile strength

26 to 30 tons

meter

At turned off part,

1 1/8"

No. of threads per inch

9

Area supported by each stay

98.4 sq in

Working pressure by Rules 216 lbs Are the stays drilled at the outer ends no Margin stays: Diameter ^(At turned off part, or Over threads) 2"
 No. of threads per inch 9 Area supported by each stay 122.30" Working pressure by Rules 202.5 lbs
 Tubes: Material A. D. Steel External diameter ^(Plain Stay) 3" Thickness 8 wgs. 1/4" + 3/16" No. of threads per inch 9
 Pitch of tubes 1 1/4" x 1 1/4" Working pressure by Rules best 204 lbs Manhole compensation: Size of open none
 end 16" x 17" Section of compensating ring none No. of rivets and diameter of rivet holes
 Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 1 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
 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 ^{Tubes} MESSRS TUBES LTD ^{Steel} FOREINGS MESSRS FRODINGHAM STEEL CO
 Number of elements 112 Material of tubes SOLID DRAWN STEEL Internal diameter and thickness of tubes 17mm & 2.5mm
 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 casing gear YES Working pressure of
 Rules 200 LBS/SQ" Pressure to which the safety valves are adjusted 205 LBS/SQ" Hydraulic test pres
 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. Russell SECRETARY

Dates of Survey ^(During progress of work in shops - -) See Machinery Report Are the approved plans of boiler and superheater forwarded herewith 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.



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