

REPORT ON BOILERS.

No. 85781

27 MAY 1930

Received at London Office

Date of writing Report

192

When handed in at Local Office

26/5/1930

Port of

Newcastle-on-Tyne

No. in Reg. Book.

Wallsend-on-Tyne

Date, First Survey

28/5/29

Last Survey

20 May 1930

1930

on the

New Steel S.S. Maplewood.

(Number of Visits)

Gross

4562

Tons

Net

2788

Master

Built at

Willington Quay

By whom built

Northumberland SBC Ltd

Yard No.

H16

When built

1930

Engines made at

Wallsend

By whom made

North Eastern Marine & Coy Ltd

Engine No.

2401

When made

1930

Boilers made at

Wallsend.

By whom made

North Eastern Marine & Coy Ltd

Boiler No.

2401

When made

1930

Nominal Horse Power

H32

Owners

Port belonging to

MULTITUBULAR BOILERS ~~MAIN~~ AUXILIARY, ~~OR~~ ~~DONKEY~~

Manufacturers of Steel

The Steel Coy of Scotland Ltd.

(Letter for Record

S

Total Heating Surface of Boilers

1325 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

One single ended.

Working Pressure

200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test

16/12/29

No. of Certificate

H1X

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

35 sq ft

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule as fitted

1/2" 1/4"

Pressure to which they are adjusted

205 lbs

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

2'-6"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-3"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

11'-9 1/8"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

Thickness

1 1/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end D.R

long. seams

T.R.D. B.S.

Diameter of rivet holes in

circ. seams

1 1/8"

Pitch of rivets

3 1/4" 8"

Percentage of strength of circ. end seams

plate rivets

65.5

45.6

Percentage of strength of circ. intermediate seam

plate rivets

86

Percentage of strength of longitudinal joint

plate rivets

86

84

Working pressure of shell by Rules

204.3 lbs

Thickness of butt straps

outer 13/16"

inner 15/16"

No. and Description of Furnaces in each Boiler

Two corrugated (Heighton)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-5 1/4"

Length of plain part

top bottom

check

Thickness of plates

crowns

19/32"

Description of longitudinal joint

weld

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

none

Working pressure of furnace by Rules

209.5 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/4"

Pitch of stays

22 x 15"

How are stays secured

double nuts

Working pressure by Rules

206 lbs

Tube plates: Material

front back

Steel

Tensile strength

26 to 30 tons

Thickness

1" 3/4"

Mean pitch of stay tubes in nests

8 7/8"

Pitch across wide water spaces

14 1/2" x 8 3/4"

Working pressure

front 210.5 lbs back 255 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

at centre

2 @ 4 1/2" x 3 1/4"

Length as per Rule

2'-3"

Distance apart

10"

No. and pitch of stays

in each

2 @ 8"

Working pressure by Rules

202 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

1/4"

Back

3/8"

Top

1/6"

Bottom

1/8"

Pitch of stays to ditto: Sides

8 x 10"

Back

9 3/4" x 9 1/4"

Top

8 x 10"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

201 lbs

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1/8"

Pitch of stays at wide water space

14 1/2" x 9 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

206 lbs

Main stays: Material

Steel

Tensile strength

29 to 33 tons

Diameter

At body of stay or over threads

2 3/4"

No. of threads per inch

6

Area supported by each stay

330 sq in

Working pressure by Rules

205 lbs

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part or over threads

1 3/4"

No. of threads per inch

9

Area supported by each stay

90 sq in

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Working pressure by Rules 201 lbs Are the stays drilled at the outer ends No Margin stays: Diameter 2" At turned off part. or Over threads

No. of threads per inch 9 Area supported by each stay 116 sq" Working pressure by Rules 214 lbs

Tubes: Material S.P. Steel External diameter 3 1/4" Thickness 8 L.S.A. 1/4" x 5/16" No. of threads per inch 9

Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules W.N.S. 208.5 lbs Manhole compensation: Size of opening in shell plate 16" x 20" Section of compensating ring 11 3/8" x 1 1/16" No. of rivets and diameter of rivet holes 32 @ 1 3/8"

Outer row rivet pitch at ends 10" Depth of flange if manhole flanged 3 3/4" 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 None 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 casing 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

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.
 The foregoing is a correct description,
Blueshield Manufacturer.

Dates of Survey During progress of work in shops --) while building (During erection on board vessel ---)
See Inquiry Report

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 This boiler has been built under special survey, materials & workmanship good. Hydraulic test satisfactory. It has been efficiently installed, examined under steam & safety valves adjusted.

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 TUE 3 JUN 1930
 Assigned See Report attached