

# REPORT ON BOILERS.

No. 85675

Received at London Office 17 MAY 1930

NEWCASTLE-ON-TYNE

Date of writing Report

102

When handed in at Local Office

6.5.1930. Port of

No. in Survey held at

Wallsend-on-Tyne

Date, First Survey 28 Jan

Last Survey 28 June 1930

on the

New Steel S/S Ottawalite.

(Number of Visits)

Tons

Master

Built at

Middlesbrough

By whom built

Yuness &amp; Co Ltd

Yard No. 143

When built 1930

Engines made at

Wallsend

By whom made

North Eastern Marine &amp; Co Ltd

Engine No. 2450

When made 1930

Boilers made at

Wallsend

By whom made

North Eastern Marine &amp; Co Ltd

Boiler No. 2450

When made 1930

Nominal Horse Power

106

Owners

Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record) (R)

Total Heating Surface of Boilers

2028

Is forced draught fitted No

Coal or Oil fired oil

No. and Description of Boilers

One single ended

Working Pressure 180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test 28.3.30

No. of Certificate 445

Can each boiler be worked separately

Area of Firegrate in each Boiler

Oil fired only

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule 13.6

as fitted 16.6

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 on uptakes and bunkers on woodwork

2-3

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

13'-3 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"

long. seams

Pitch of rivets

3.241

Percentage of strength of circ. end seams

plate 65.3

rivets 43.9

Percentage of strength of circ. intermediate seam

plate 85.4

rivets 88.4

Percentage of strength of longitudinal joint

plate 88.4

rivets 88.4

Working pressure of shell by Rules

180.8 lbs

Thickness of butt straps

outer 13/16"

inner 15/16"

No. and Description of Furnaces in each Boiler

3 Corrugated (Morison)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

2'-8 1/8"

Length of plain part

top

bottom

Thickness of plates

crown 4/16"

bottom 1/16"

Description of longitudinal joint

weld

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

none

Working pressure of furnace by Rules

195 lbs

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

15/32"

Pitch of stays

1-6 1/2" x 1-6 1/2"

How are stays secured

double nuts

Working pressure by Rules

181.8 lbs

End plates: Material

front Steel

back Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Can pitch of stay tubes in nests

8 1/8"

Pitch across wide water spaces

1-2 1/2" x 8 1/8"

Working pressure

front 213 lbs

back 248 lbs

Orders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

Centre

2 @ 5/8" x 1 1/8"

Length as per Rule

2'-3"

Distance apart

8 1/8"

No. and pitch of stays

Each

2 @ 8 3/4" x 1"

Working pressure by Rules

206 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 1/16" x 8"

Back

8 1/2" x 8 1/8"

Top

8 1/2" x 8 3/4"

Are stays fitted with nuts or riveted over

riveted over

Working pressure by Rules

189 lbs

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Pitch of stays at wide water space

1-2 1/2" x 8 1/8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

189.9 lbs

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Meter

At body of stay,

3 3/4"

Over threads

No. of threads per inch

6

Area supported by each stay

32 1/4"

Working pressure by Rules

191 lbs

Screw stays: Material

Iron

Tensile strength

21 1/2 minimum

Meter

At turned off part,

1 1/2"

Over threads

No. of threads per inch

9

Area supported by each stay

69.07



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Foundation



5A 85675.

Working pressure by Rules 182 lbs Are the stays drilled at the outer ends yes Margin stays: Diameter { At turned off part, or Over threads 1 3/4" 181 lbs  
No. of threads per inch 9 Area supported by each stay 101.56" Working pressure by Rules 181 lbs  
Tubes: Material Iron External diameter { Plain 3" Thickness 3/8" No. of threads per inch 9  
Pitch of tubes 1 1/4" x 1 1/4" Working pressure by Rules 180 lbs Manhole compensation: Size of opening 27 1/2"  
shell plate 20 1/8" x 16 1/8" Section of compensating ring 11 1/8" x 1 1/8" No. of rivets and diameter of rivet holes 34 @ 1 3/8"  
Outer row rivet pitch at ends 9 3/4" 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 rivets  
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 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 from the boiler  
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  
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure  
tubes, castings and after assembly in place Are drain cocks or valves  
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 NORTH EASTERN MARINE ENGINEERING CO., LTD.  
The foregoing is a correct description,  
Blanchard  
MANUFACTURER

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

See Indeb. Report

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

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 is securely fixed in the vessel has been 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. 13 MAY 1930

Assigned

See Indeb. JE 14064



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