

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'y Last Survey 28 April 1930

on the New Steel S/S Ottawalite (Number of Visits) Tons

Builder Built at Middlesbrough By whom built Yarness & Bay Ltd Yard No. 143 When built 1930

Engines made at Wallsend By whom made North Eastern Marine & Co Ltd Engine No. 2750 When made 1930

Boilers made at Wallsend By whom made North Eastern Marine & Co Ltd Boiler No. 2750 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)

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 H45 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 13.6 per Rule 16.6 as fitted Pressure to which they are adjusted 185 lbs Are they fitted with casing 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 or 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" Pitch of rivets 3.241 1/4"

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 89.4 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 1/16" 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

Head 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

Head plates: Material front Steel back Steel Tensile strength 26 to 30 tons Thickness 15/16" 3/4"

Span pitch of stay tubes in nests 8 1/2" Pitch across wide water spaces 1-2 1/2" x 8 1/2" Working pressure front 213 lbs back 278 lbs

Orders to combustion chamber tops: Material Steel Tensile strength 29 to 33 tons Depth and thickness of girder 8 1/2"

Centre 2 @ 5 1/8" x 1 1/2" Length as per Rule 2'-3" Distance apart 8 1/2" No. and pitch of stays 2 @ 8 3/4" 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"

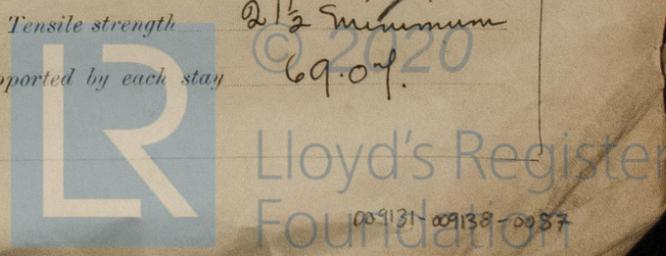
Pitch of stays at wide water space 1-2 1/2" x 8 1/8" Are stays fitted with nuts or riveted over nuts

Working Pressure 189.9 lbs Main stays: Material Steel Tensile strength 28 to 32 tons

At body of stay, meter Over threads 3" 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 2 1/2 minimum 69.07

At turned off part, meter Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay



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Working pressure by Rules 182 lbs Are the stays drilled at the outer ends yes Margin stays: Diameter At turned off part, 1 3/4" or Over threads 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

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

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 - - } See Indeb. Report Are the approved plans of boiler and superheater forwarded herewith Yes (If not state date of approval.)

while building { During erection on board vessel - - - } 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.

INDUPLICATE

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. 36 14064

