

REPORT ON BOILERS.

No. 96017

Received at London Office

MAR 10 1938

Date of writing Report

19

When handed in at Local Office

8/31 1938

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Wallsend

Date, First Survey

30 July 1937

Last Survey

1st March 1938

1938

on the

J.H. "Wick Trade"

(Number of Visits)

Gross
Tons
Net

Master _____ Built at Sunderland By whom built J.L. Thompson Yard No. 584 When built 1938
 Engines made at Wallsend By whom made North Eastern Marine Eng. Co. Ltd Engine No. 2890 When made 1938
 Boilers made at Wallsend By whom made North Eastern Marine Eng. Co. Ltd Boiler No. 2890 When made 1938
 Nominal Horse Power 373 Owners Traders Navigation Co. Ltd. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland (Letter for Record 5)
 Total Heating Surface of Boilers 4006 sq ft Is forced draught fitted Yes Coal or Oil fired coal
 No. and Description of Boilers Two single ended multitubular Working Pressure 220 lbs
 Tested by hydraulic pressure to 380 lbs Date of test 11-11-37 No. of Certificate 743 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler 40.5 sq ft No. and Description of safety valves to each boiler Two spring loaded.
 Area of each set of valves per boiler {per Rule 10.6 sq ft as fitted 11.86 sq ft} Pressure to which they are adjusted 225 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 10'-3" Is oil fuel carried in the double bottom under boilers No
 Smallest distance between shell of boiler and tank top plating 2'-4" Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 13'-9 5/16" Length 11'-6" Shell plates: Material Steel Tensile strength 29-33 tons
 Thickness 1 11/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end L.D.R. inter. 4"}
 long. seams Stl Straps. T.R. Diameter of rivet holes in {circ. seams 1 7/8" long. seams 1 3/8"} Pitch of rivets 9 7/8"
 Percentage of strength of circ. end seams {plate 64 rivets 48} Percentage of strength of circ. intermediate seam {plate — rivets —}
 Percentage of strength of longitudinal joint {plate 85.4 rivets 87.1 combined 88.2} Working pressure of shell by Rules 223 lbs
 Thickness of butt straps {outer 1 1/8" inner 1 3/16"} No. and Description of Furnaces in each Boiler Three brightons
 Material Steel Tensile strength 26-30 tons Smallest outside diameter 38 1/4"
 Length of plain part {top — bottom —} Thickness of plates {crown 1 9/32" bottom 1 9/32"} Description of longitudinal joint weld
 Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 225 lbs
 End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 17/32" Pitch of stays 25" x 19"
 How are stays secured double nuts Working pressure by Rules 224 lbs
 Tube plates: Material {front Steel back Steel} Tensile strength {26-30 tons} Thickness {31/32" 25/32"}
 Mean pitch of stay tubes in nests 9.8 Pitch across wide water spaces 14 1/4" Working pressure {front 229 lbs back 228 lbs}
 Girders to combustion chamber tops: Material Steel Tensile strength 29-33 tons Depth and thickness of girder
 at centre 9 1/2" x 2 @ 1 1/16" Length as per Rule 32" Distance apart 9 1/4" No. and pitch of stays
 in each 2 @ 10 1/4" Working pressure by Rules 237 lbs Combustion chamber plates: Material Steel
 Tensile strength 26-30 tons Thickness: Sides 25/32" Back 3/4" Top 25/32" Bottom 25/32"
 Pitch of stays to ditto: Sides 10 1/4" x 9" Back 10" x 8 7/8" Top 10 1/4" x 9 1/4" Are stays fitted with nuts or riveted over Nuts
 Working pressure by Rules 222 lbs Front plate at bottom: Material Steel Tensile strength 26-30 tons
 Thickness 31/32" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 15/16"
 Pitch of stays at wide water space 14 1/4" Are stays fitted with nuts or riveted over Nuts
 Working Pressure 220 lbs Main stays: Material Steel Tensile strength 28-32 tons
 Diameter {At body of stay 3 1/2" or Over threads —} No. of threads per inch 6 Area supported by each stay 475 sq in
 Working pressure by Rules 227 lbs Screw stays: Material Steel Tensile strength 26-30 tons
 Diameter {At turned off part 1 7/8" or Over threads —} No. of threads per inch 9 Area supported by each stay 94.8 sq in

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Working pressure by Rules 225 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 2 1/8" or Over threads 2 1/8" ✓
No. of threads per inch 9 Area supported by each stay 115.6 sq" Working pressure by Rules 246 lbs ✓
Tubes: Material Stal. 58 External diameter { Plain 3" Thickness { 3/8" & 5/16" No. of threads per inch 9 ✓
Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 225 lbs Manhole compensation: Size of opening in
END shell plate 16" x 12" Section of compensating ring ✓ No. of rivets and diameter of rivet holes —
Outer row rivet pitch at ends — Depth of flange if manhole flanged 4 3/8" ✓ Steam Dome: Material —
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

Smoke Tube

Manufacturers of

Tubes
Steel forgings
Steel castings

Stewart & Lloyds
Prodingham Stal. Co.
Redup 1856

Number of elements 96 ✓ Material of tubes Stal. Internal diameter and thickness of tubes 15 7/8" x 2.5 7/8"
Material of headers Stal. Tensile strength 26-30 tons Thickness 1 1/8" Can the superheater be shut off and
the boiler be worked separately Yes ✓ 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 as per
Rules 220 lbs Pressure to which the safety valves are adjusted 225 lbs Hydraulic test pressure:
tubes 1500 lbs ✓ forgings and castings 660 lbs ✓ and after assembly in place 440 lbs Are drain cocks or
valves fitted 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 foregoing is a correct description,
THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

John Neill

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 Yes ✓
(If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. ✓

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

These boilers have been built under Special Survey, in accordance with the Rules and approved plan. The workmanship and materials are good: on completion they were tested by hydraulic pressure to 380 lbs per square inch and found tight and satisfactory. They have been fitted on board in an efficient manner tried under steam and found satisfactory. ✓

Survey Fee ...

Travelling Expenses (if any) £

When applied for,

When received,

19

19

J. S. L. L.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 18 MAR 1938

Assigned

See Sea 96017



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