

REPORT ON BOILERS.

No. 101619

Date of writing Report 2 NOV 1943 When handed in at Local Office 2 NOV 1943 Port of NEWCASTLE-ON-TYNE
No. in Reg. Book 37280 Survey held at Wallsend. Date, First Survey 4th June, 1942 Last Survey 22nd Sept. 1943
(Number of Visits 49) Gross Tons 7017 Net Tons 4758
Built at Sunderland By whom built Short Bros Ltd. Yard No. 477 When built 1943
Engines made at Wallsend. By whom made Chas. E. Marine Eng Co (1938) Ltd Engine No. 3050 When made 1943
Boilers made at " By whom made " Boiler No. 3041 When made 1943
Nominal Horse Power " Owners Ministry of War Transport Port belonging to Sunderland

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

Manufacturers of Steel Steel Co of Scotland Ltd (Letter for Record S)
Total Heating Surface of Boilers 2416 Is forced draught fitted Yes Coal or Oil fired Coal
No. and Description of Boilers 1 Aux SB. Working Pressure 220
Tested by hydraulic pressure to 380 Date of test 28.4.43 No. of Certificate 1044 Can each boiler be worked separately Yes
Area of Firegrate in each Boiler 55 No. and Description of safety valves to each boiler Double improved high lift
Area of each set of valves per boiler { per Rule 6.42 as fitted 7.94 Pressure to which they are adjusted 225 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 or uptakes and bunkers or woodwork ✓ 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 ✓
Largest internal dia. of boilers 15'-0 1/2" Length 11'-8 1/2" Shell plates: Material S Tensile strength 29-33
Thickness 1 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end DR inter. ✓
long. seams TR. DBS Diameter of rivet holes in { circ. seams 1 1/2" Pitch of rivets { 4 1/2" 10 3/8"
Percentage of strength of circ. end seams { plate 63.6 rivets 46.2 Percentage of strength of circ. intermediate seam { plate 85.5 rivets 86.2
Percentage of strength of longitudinal joint { plate 85.5 rivets 86.2 combined 88.3
Thickness of butt straps { outer 1 1/8" inner 1 1/4" No. and Description of Furnaces in each Boiler 3 cf.
Material S Tensile strength 26-30 Smallest outside diameter 3'-9 3/4"
Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 1 1/16" bottom 1 1/16" Description of longitudinal joint weld
Dimensions of stiffening rings on furnace or c.c. bottom ✓
End plates in steam space: Material S Tensile strength 26-30 Thickness 1 1/32" Pitch of stays 19 3/4" x 19 5/8"
How are stays secured Double nuts
Tube plates: Material { front S back S Tensile strength { 26-30 Thickness { 1 5/16" 2 7/32"
Mean pitch of stay tubes in nests 9 7/16" Pitch across wide water spaces 14" x 8 1/4"
Girders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder at centre 10 1/2" x 1 1/16" Dble Length as per Rule 33 17/32" Distance apart 9 1/4" No. and pitch of stays in each 32 8"
Combustion chamber plates: Material S
Tensile strength 26-30 Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 7/8"
Pitch of stays to ditto: Sides 9 1/4" x 8" Back 9 1/4" x 8" Top 9 1/4" x 8" Are stays fitted with nuts or riveted over nuts
Front plate at bottom: Material S Tensile strength 26-30
Thickness 1 5/16" Lower back plate: Material S Tensile strength 26-30 Thickness 2 7/32"
Pitch of stays at wide water space 14" x 8" Are stays fitted with nuts or riveted over nuts
Main stays: Material S Tensile strength 28-32
Diameter { At body of stay, 3 1/4" or Over threads ✓ No. of threads per inch 6
Screw stays: Material S Tensile strength 26-30
Diameter { At turned off part, 1 3/4" or Over threads ✓ No. of threads per inch 9

Are the stays drilled at the outer ends NO Margin stays: Diameter { At turned off part, 1 7/8"
or
Over threads 1 7/8"
No. of threads per inch 9
Tubes: Material SD Steel External diameter { Plain 3
Stay 3 Thickness { 8 Wg.
3/8 + 5/16 No. of threads per inch 9
Pitch of tubes 4 1/4" x 4 1/8" Manhole compensation: Size of opening in
shell plate NONE Section of compensating ring No. of rivets and diameter of rivet holes
Outer row rivet pitch at ends Depth of flange if manhole flanged 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 Thickness of crown No. and diameter of
stays Inner radius of crown
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 { Tubes
Steel forgings
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 easing gear
Pressure to which the safety valves are adjusted Hydraulic test pressure:
tubes forgings and 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. (1938) LTD.

The foregoing is a correct description,

John Neill

Manufacturer.

Similar Boilers 11.10.41

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

See Machinery Rpt.

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

Total No. of visits

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under Special Survey in accordance with the Requirements of the Rules the Approved Plan & the Specification. The materials & workmanship are good.

The boiler proved sound & tight under hydraulic test & satisfactory under steam.

Survey Fee ... £
Travelling Expenses (if any) £

See Machinery Report

When applied for, 19
When received, 19

R. Moffitt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES, 16 NOV 1943

Assigned

See minute on J.E. Rpt.



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Foundation