

REPORT ON BOILERS.

No. 101619

Received at London Office 3 - NOV 1943
 Date of writing Report 2 NOV 1943 When handed in at Local Office 2 NOV 1943 Port of NEWCASTLE-ON-TYNE.

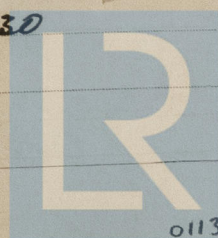
No. in Survey held at 7017
 Reg. Book. 37280 on the 83 "EMPIRE CAMP"
 Date, First Survey 4th June, 1942 Last Survey 22nd Sept 1943
 (Number of Visits 49) Tons Gross 7017 Net 4758

Built at Sunderland By whom built Short Bros Ltd. Yard No. 477 When built 1943.
 Engines made at Walhead By whom made C.E. Marine Pty Co (1938) Ltd Engine No. 3050 When made 1943
 Boilers made at By whom made Boiler No. 3048 When made 1943
 Nominal Horse Power 542 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 5518 Is forced draught fitted 400 Coal or Oil fired coal
 No. and Description of Boilers 2 SB. Working Pressure 220

Tested by hydraulic pressure to 380 Date of test 14.4.43 No. of Certificate 1043 Can each boiler be worked separately 408
 Area of Firegrate in each Boiler 67.5 No. and Description of safety valves to each boiler 1 Double
 Area of each set of valves per boiler {per Rule 14.9 14.78
 as fitted 16.58 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 40
 Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated 40
 Largest internal dia. of boilers 15'-11 7/16" Length 12'-4 1/2" Shell plates: Material S. Tensile strength 29.33
 Thickness 1 7/32" Are the shell plates welded or flanged 40 Description of riveting: circ. seams end DR
 long. seams TR. D.B.S. Diameter of rivet holes in {circ. seams 1 9/16" Pitch of rivets {4.1
 {long. seams 10 1/16"
 Percentage of strength of circ. end seams {plate 62.
 {rivets 48.6 Percentage of strength of circ. intermediate seam {plate
 {rivets 85.5
 Percentage of strength of longitudinal joint {plate 86
 {rivets 88.2
 Thickness of butt straps {outer 1 3/16"
 {inner 1 5/16" No. and Description of Furnaces in each Boiler 3 cf
 Material S Tensile strength 26-30 Smallest outside diameter 3'-11 1/4"
 Length of plain part {top ✓ Thickness of plates {crown 47/64" Description of longitudinal joint weld.
 {bottom ✓ {bottom 1/64"
 Dimensions of stiffening rings on furnace or c.c. bottom ✓
 End plates in steam space: Material S. Tensile strength 26-30 Thickness 1 1/2" Pitch of stays 23 x 20 13/16"
 How are stays secured Double nuts.
 Tube plates: Material {front S. Tensile strength {26-30 Thickness {1 5/16"
 {back S. {7/8"
 Mean pitch of stay tubes in nests 8.87 Pitch across wide water spaces 14 1/4 x 4 1/8"
 Girders to combustion chamber tops: Material S Tensile strength 29-33 Depth and thickness of girder
 at centre 11 1/2 x 1" dbb Length as per Rule 46 1/2" Distance apart 8 1/2" No. and pitch of stays
 in each 3 @ 11 1/8" Combustion chamber plates: Material S.
 Tensile strength 26-30 Thickness: Sides 25/32 x 5/16" Back 25/32" Top 25/32 x 5/16" Bottom 29/32"
 Pitch of stays to ditto: Sides 11 1/8 x 8 7/8" Back 10 1/2 x 7 3/4" Top 11 1/8 x 8 1/2" 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 3/32"
 Pitch of stays at wide water space 15 1/8 x 14 1/2" Are stays fitted with nuts or riveted over nuts
 Main stays: Material S. Tensile strength 28-32.
 Diameter {At body of stay, 3 1/2"
 {Over threads ✓ No. of threads per inch 6
 Screw stays: Material S Tensile strength 26-30
 Diameter {At turned off part, 1 3/4" 1 7/8" x 2"
 {Over threads ✓ No. of threads per inch



© 2021

Lloyd's Register
Foundation

011397-011407-0355

Are the stays drilled at the outer ends 110 Margin stays: Diameter { At turned off part, 2 1/8 or Over threads 2 1/8 }
No. of threads per inch 9
Tubes: Material SD. Steel External diameter { Plain 3" Stay 3" } Thickness { 8 W.G. 3/8" x 7/16" } No. of threads per inch 9
Pitch of tubes 5 7/8" x 4 1/8"; 4 3/4" x 4 1/8"; 4 7/8" 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 Smoke tube Manufacturers of { Tubes Stewart & Lloyds Steel forgings Appleby Frodingham Steel Co Steel castings _____ }
Number of elements 126 Material of tubes SD. Steel Internal diameter and thickness of tubes 17 1/4" x 2 1/2" 1/4"
Material of headers Forged Steel Tensile strength 26-30 Thickness 7/8" 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 3.14 Are the safety valves fitted with easing gear yes
Pressure to which the safety valves are adjusted 225 lbs. Hydraulic test pressure: tubes 1500 forgings and castings 660 and after assembly in place 440 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 NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

The foregoing is a correct description,

John Neill
DIRECTOR

Manufacturer.

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

See monthly Rpt.

Are the approved plans of boiler and superheater forwarded herewith 10/11/41
(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.) These boilers & superheaters have been constructed under Special Survey in accordance with the Requirements of the Rules, the approved Plan & the Specification
The materials & workmanship are good
The boilers proved sound & tight under hydraulic test & satisfactory under steam

Survey Fee ... £ See Monthly Rpt. When applied for, 19
Travelling Expenses (if any) £ _____ When received, 19

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

Committee's Minute

TUES. 16 NOV 1943

Assigned

see minute on E. Rpt.



© 2021

Lloyd's Register
Foundation