

REPORT ON BOILERS.

No. 101656

18 NOV 1943

Received at London Office

Date of writing Report 15 NOV 1943 When handed in at Local Office 15 NOV 1943 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Wallsend. Date, First Survey 28 January 1943 Last Survey 4 November 1943
Reg. Book. (Number of Visits 12) (Gross 9795)

39912 on the SS 'THAMESFIELD' Tons (Net 5782)

Built at Sunderland By whom built Sir J. Laing & Sons Ltd Yard No. 750 When built 1943

Engines made at Wallsend. By whom made M.E. Marine Eng Co (1938) Ltd Engine No. 3066 When made 1943

Boilers made at " By whom made " Boiler No. 3012 When made 1943

Nominal Horse Power " Owners Thurston & Sons Ltd. Port belonging to Newcastle

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S)

Total Heating Surface of Boilers 10020 sq ft Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers 3 SB Working Pressure 220

Tested by hydraulic pressure to 380 Date of test 30.7.43 No. of Certificate 1060 Can each boiler be worked separately yes

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 1 Double Improved high lift 2 1/2"
Area of each set of valves per boiler (per Rule 8.88 as fitted 9.8) 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 yes

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 16'-2 3/32" Length 12'-6" Shell plates: Material S Tensile strength 30-34

Thickness 1 3/16" Are the shell plates welded or flanged no Description of riveting: circ. seams (end DK inter. ✓)
long. seams TR DBS Diameter of rivet holes in (circ. seams 1 9/16" long. seams 1 9/16") Pitch of rivets (circ. seams 4 3/8" long. seams 10 1/4")

Percentage of strength of circ. end seams (plate 62.1 rivets 47) Percentage of strength of circ. intermediate seam (plate 84.75 rivets 88.7)

Percentage of strength of longitudinal joint (plate 84.75 rivets 88.7 combined 87.4)

Thickness of butt straps (outer 1 7/32" inner 1 9/32") No. and Description of Furnaces in each Boiler 3 Cf.

Material S Tensile strength 26-30 Smallest outside diameter 47 23/32"

Length of plain part (top ✓ bottom ✓) Thickness of plates (crown 47/64" bottom 47/64") 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 13/32" Pitch of stays 22 1/4 x 18 1/2"

How are stays secured Double nuts

Tube plates: Material (front S back S) Tensile strength 26-30 Thickness (front 15/16" back 7/8")

Mean pitch of stay tubes in nests 8.7 Pitch across wide water spaces 14 1/2 x 7 1/4"

Girders to combustion chamber tops: Material S Tensile strength 29-33 Depth and thickness of girder

at centre 11 3/4 x 1" Double Length as per Rule 46 1/2" Distance apart 8 1/2" wing 9" Centre No. and pitch of stays

in each 3 @ 11 1/8" Combustion chamber plates: Material S

Tensile strength 26-30 Thickness: Sides 13/16" Back 23/32" Top 13/16" Bottom 29/32"

Pitch of stays to ditto: Sides 11 1/8" x 8 1/2" Back 9 3/4" x 8" Top 11 1/8" x 9" Are stays fitted with nuts or riveted over nuts

Front plate at bottom: Material S Tensile strength 26-30

Thickness 15/16" Lower back plate: Material S Tensile strength 26-30 Thickness 15/16"

Pitch of stays at wide water space 15 3/8" x 8" Are stays fitted with nuts or riveted over nuts

Main stays: Material S Tensile strength 28-32

Diameter (At body of stay, or Over threads) 3 1/4" + 3 1/2" No. of threads per inch 6

Screw stays: Material S Tensile strength 26-30

Diameter (At turned off part, or Over threads) 1 3/4" + 2" No. of threads per inch 9



Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 2" x 2 1/8"

No. of threads per inch 9

Tubes: Material L.W. Steel External diameter { Plain 2 1/2 Stay 2 1/2 Thickness { 8 wg 7/16 3/8 x 7/16 No. of threads per inch 9

Pitch of tubes 4" x 3 7/8 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 H.E.M. Combustion Chamber manufacturers of { Tubes Stewarts & Lloyds Steel forgings Readers Stewarts & Lloyds Steel castings _____

Number of elements 36 Material of tubes S.P. Steel Internal diameter and thickness of tubes 1.273 x 7 wg

Material of headers SD Steel Tensile strength 26-28 Thickness 1/4 Can the superheater be shut off and the boiler be worked separately no 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 1/4 Are the safety valves fitted with easing gear yes

Pressure to which the safety valves are adjusted 225 lbs. Hydraulic test pressure: tubes 1500 Headers 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 LONDON MARINE ENGINEERS' SOCIETY
John Neill Manufacturer.

Dates of Survey { During progress of work in shops - - } See Mchly Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

{ During erection on board vessel - - - } _____ Total No. of visits _____

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers & superheaters have been constructed under Special Survey in accordance with the approved Plans & the Requirements of the Rules. The materials & workmanship are good & the boilers & superheaters proved sound & tight under hydraulic test & satisfactory under steam.

Survey Fee ... £ See Mchly 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. 30 NOV 1943

Assigned see minute on 28. Rpt.