

REPORT ON BOILERS.

No. 98381

REMAIN

Received at London Office APR - 3 1940

Date of writing Report 19 14 When handed in at Local Office 14/11/40

Port of NEWCASTLE-ON-TYNE

No. in Reg. Book. 38561 Survey held at Wallsend Date, First Survey 28 July Last Survey 29 March 1940

on the SS "CONFIELD" (Number of Visits) Gross Tons Net Tons

Master Built at Sunderland By whom built J. J. Thompson & Son Ltd Yard No. 597 When built 1940
Engines made at Wallsend By whom made N.E. Marine Eng Co (1938) Ltd Engine No. 2956 When made 1940
Boilers made at By whom made Boiler No. 2956 When made 1940
Nominal Horse Power Owners Confield SS Co 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 1235 sq ft Is forced draught fitted no 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 30.11.39 No. of Certificate 834 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 3 1/2 sq ft No. and Description of safety valves to each boiler 1 Double

Area of each set of valves per boiler {per Rule 6.6 as fitted 7.96} 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 ✓

Smallest distance between shell of boiler and tank top plating 2'-8" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 11'-9 23/32" Length 10'-6" Shell plates: Material S Tensile strength 29-33

Thickness 1 9/16" Are the shell plates welded or flanged no Description of riveting: circ. seams {end DR inter. ✓}

long. seams T.R. D. B. S. (5 rivets) Diameter of rivet holes in {circ. seams 1 3/16" long. seams 1 1/16"} Pitch of rivets {3 1/2" 8 3/8"}

Percentage of strength of circ. end seams {plate 66 rivets 44} Percentage of strength of circ. intermediate seam {plate 85.8 rivets 86.2 combined 88.7}

Percentage of strength of longitudinal joint {plate 85.8 rivets 86.2 combined 88.7} Working pressure of shell by Rules 220

Thickness of butt straps {outer 7/8" inner 1"} No. and Description of Furnaces in each Boiler 2 cf.

Material S Tensile strength 26-30 Smallest outside diameter 3-5 1/32"

Length of plain part {top ✓ bottom ✓} Thickness of plates {crown 4 1/4" bottom 4 1/4"} Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 226

End plates in steam space: Material S Tensile strength 26-30 Thickness 1 1/16" Pitch of stays 14 1/4" 15 7/8"

How are stays secured D.N. & thin washers Working pressure by Rules 223

Tube plates: Material {front S back S} Tensile strength {26-30} Thickness {1 1/16" 13/16"}

Mean pitch of stay tubes in nests 10.35" Pitch across wide water spaces 14 1/4" x 9" Working pressure {front 240 back 229}

Girders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder

at centre 9 7/8" x 1 1/32" double Length as per Rule 31.9" Distance apart 11 3/4" No. and pitch of stays

in each 3 @ 7 1/2" Working pressure by Rules 224 Combustion chamber plates: Material S

Tensile strength 26-30 Thickness: Sides 25/32" Back 25/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 10 x 9 7/8" Back 9 3/4" x 9 7/8" Top 11 3/4" x 7 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 222 Front plate at bottom: Material S Tensile strength 26-30

Thickness 1 1/16" Lower back plate: Material S Tensile strength 26-30 Thickness 1 1/16"

Pitch of stays at wide water space 14 1/2" x 9 7/8" Are stays fitted with nuts or riveted over nuts

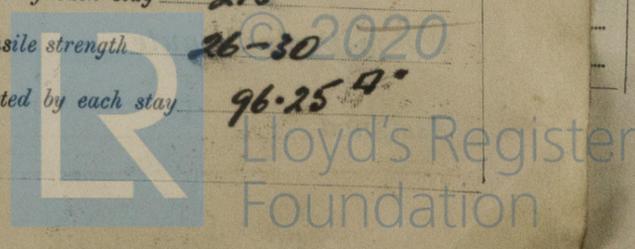
Working Pressure 309 Main stays: Material S Tensile strength 28-32

Diameter {At body of stay, or Over threads 2 3/8"} No. of threads per inch 6 Area supported by each stay 218 sq in

Working pressure by Rules 220 Screw stays: Material S Tensile strength 26-30

Diameter {At turned off part, or Over threads 2"} No. of threads per inch 9 Area supported by each stay 96.25 sq in

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Working pressure by Rules 258 Are the stays drilled at the outer ends NO Margin stays: Diameter ^{At turned off part,} 2 1/2" ^{or} 2 1/2" ^{Over threads} ✓
 No. of threads per inch 9 Area supported by each stay 111 Working pressure by Rules 256
 Tubes: Material S.D. Steel External diameter ^{Plain} 3 1/4 ^{Stay} 3 1/4 Thickness 3/8 7/16 7/16 No. of threads per inch 9
 Pitch of tubes 4 1/2 4 1/2 ✓ Working pressure by Rules 227 Manhole compensation: Size of opening in shell plate ✓
 Section of compensating ring ✓ No. of rivets and diameter of rivet holes ✓
 Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 3 7/8" 3 9/16" 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 _____ 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 _____ Working pressure as per Rules _____
 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 foregoing is a correct description,
 THE NORTH EASTERN MARINE ENGINEERING CO. (1900) LTD.
 John Neill Manufacturer.

Dates of Survey ^{During progress of work in shops - - -} See Machinery report Are the approved plans of boiler and superheater forwarded herewith 26-5-39 (If not state date of approval.)
^{while building} ^{During erection on board vessel - - -} _____ Total No. of visits _____

Is this Boiler a duplicate of a previous case NO If so, state Vessel's name and Report No. "Argyll" except Screw Stays

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This Auxiliary Boiler has been made under Special Survey in accordance with the approved plan & the requirements of the Rules
The materials & workmanship are good & the boiler was found sound & tight under hydraulic test 380 lbs. & satisfactory under steam.

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

B. C. C. C.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 12 APR 1940

Assigned

See Old J.E. 32840



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