

REPORT ON BOILERS

No. 5181.

THU. 5 JUL. 1923

Received at London Office

Date of writing Report 2nd July 1923 When handed in at Local Office 2-7-1923 Port of MANCHESTER.

No. in Survey held at Leeds, and Rotherhead Date, First Survey 19-6-23 Last Survey 25-2-23

Reg. Book. #087 on the Vertical Cross Tube Boilers for MS. LA. PUYA (Number of Visits) Gross Tons Net

Built at By whom built Cammell, Laird & Co Yara No. 894 When built

Engines made at By whom made Engine No. When made

Boilers made at Leeds By whom made Clayton Son & Co Ltd Boiler No. B5037 When made 1923-6

Owners Imperial Oil Co Ltd (Clark & Lewis Mgrs) Port belonging to Glasgow.

VERTICAL DONKEY BOILER.
Made at Leeds. By whom made Clayton Son & Co Ltd Boiler No. B5037 When made 1923/6 Where fixed On upper deck

Manufacturers of Steel Messrs Leeds Forge Co

Total Heating Surface of Boiler 45 sq ft Is forced draught fitted Coal or Oil fired oil

No. and Description of Boilers 1 Vertical Cross Tube Working pressure 80 lbs.

Tested by hydraulic pressure to 160 lbs sq in Date of test 29-6-23. No. of Certificate 54.

Area of Firegrate in each Boiler 4.7 sq ft No. and Description of safety valves to each boiler one spring loaded

Area of each set of valves per boiler per rule 71 sq in Pressure to which they are adjusted 80 lbs Are they fitted with easing gear

State whether steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers no.

Is oil fuel carried in the double bottom under boiler Smallest distance between base of boiler and tank top plating no.

Is the base of the boiler insulated Largest internal dia. of boiler 2'-11 1/4" Height 7'-6"

Shell plates: Material Mild Steel Tensile strength 28 to 32 tons Thickness 3/8"

Are the shell plates welded or flanged neither Description of riveting: circ. seams single lap long. seams Double lap.

Dia. of rivet holes in { circ. seams 13/16" Pitch of rivets 2 1/8" Percentage of strength of circ. seams { plate 61% rivets 53.4% of Longitudinal joint { plate 69.5 rivets 86.5 combined.

Working pressure of shell by rules 189 lbs sq in Thickness of butt straps { outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished partial spherical Material Mild Steel

Tensile strength 26 to 30 tons Thickness 3/8" Radius 3'-3" Working pressure by rules

Description of Furnace: Plain, spherical, or dished crown Dished Material Mild Steel Tensile strength 26 to 30 tons

Thickness 3/8" External diameter { top 2'-4 1/4" Length as per rule 3'-0" Working pressure by rules 100 lbs sq in

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown Working pressure by rule

Thickness of Ogee Ring Diameter as per rule { D a Working pressure by rule

Combustion Chamber: Material Tensile strength Thickness of top plate

Radius if dished Working pressure by rule Thickness of back plate Diameter if circular

Length as per rule Pitch of stays Are stays fitted with nuts or riveted over

Diameter of stays over thread Working pressure of back plate by rules

Tube Plates: Material { front back Tensile strength { Thickness { Mean pitch of stay tubes in nests

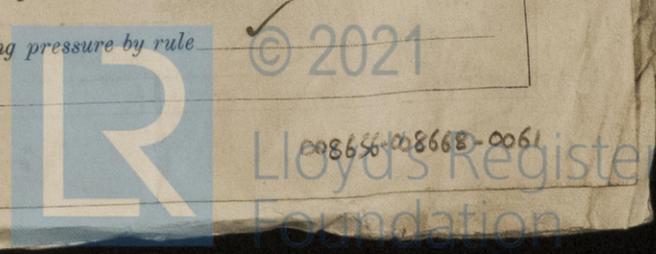
If comprising shell, Dia. as per rule { front back Pitch in outer vertical rows { Dia. of tube holes FRONT { stay plain BACK { stay plain

Is each alternate tube in outer vertical rows a stay tube Working pressure by rules { front back

Girders to combustion chamber tops: Material Tensile strength

Depth and thickness of girder at centre Length as per rule

Distance apart No. and pitch of stays in each Working pressure by rule



Crown stays: Material Tensile strength Diameter { at body of stay, or over threads No. of threads per inch Area supported by each stay Working pressure by rules
Screw stays: Material Tensile strength Diameter { at turned off part, or over threads No. of threads per inch Area supported by each stay Working pressure by rules Are the stays drilled at the outer ends
Tubes: Material External diameter { plain stay Thickness { No. of threads per inch Pitch of tubes Working pressure by rules
Manhole Compensation: Size of opening in shell plate 15" x 12" Section of compensating ring 26" x 23" x 5/8" No. of rivets and diameter of rivet holes 32 - 3/4" 13/16" holes Outer row rivet pitch at ends 4 1/4" Depth of flange if manhole flanged
Uptake: External diameter 8 7/8" Thickness of uptake plate 7/16"
Cross Tubes: No. 2 External diameters { 7" Thickness of plates 3/8"

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description,
CLAYTON, SON & CO., LIMITED.
Joe Clayton J. CLAYTON, DIRECTOR
 Manufacturer.

Dates of Survey { During progress of work in shops - June 19, 23, 26, 28, 29
 while building { During erection on board vessel - - -
 Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes.
 Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 This Boiler has been constructed under Special Survey, the materials and workmanship employed in its manufacture are sound and good and proved satisfactory under test.

This Boiler has now been fitted on board SS "LAFLAYA" and is to be used for heating and galley purposes. It has been examined under steam and the safety valve adjusted to 80 lbs per sq inch. All being found satisfactory life of compression washer 5/16".

John Dykes
 and *J.W. Leicester*

This Boiler has been fitted with an oil fuel installation Liverpool in accordance with approved plan, Secretary's letter E August 30 1923. ~~Liverpool~~ and the ull requirements. On completion the installation was examined and tested under full working conditions and found satisfactory in every respect. The Boiler is eligible in our opinion to have notation "Fitted for oil fuel 1,24 FP above 150° F".

John Dykes & J.W. Leicester
 21 January 1924.
 Liverpool.

Survey Fee ... £ 4 : 4 :
 Travelling Expenses (if any) £ 2 : 3 :
 When applied for, 2-7-23.
 When received, 11-7-23.

W. Lane & R. Jackintosh
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned