

REPORT ON BOILERS.

L.An. BLR. Rpt.
No. 32 L.A.

Rpt. 5a.

Received at London Office - 4 JUN 1942

Date of writing Report 19 When handed in at London Office 19 Port of LOS ANGELES, CALIFORNIA

No. in Survey held at LOS ANGELES, CALIFORNIA Date, First Survey 2nd Nov. Last Survey 29th Nov. 19 41

Reg. Book. on the BRITISH GOVERNMENT FREIGHTERS s/s "Ocean Venus" (Number of Visits 18) Tons { Gross 7174 Net 4272

Built at Richmond, Calif. By whom built Todd-California Shipbuilding Division of the Permanente Metals Corporation and No. 12 When built 1942

Engines made at Hamilton, Ohio By whom made General Machinery Corp Engine No. 6536 When made 1941

Boilers made at Los Angeles, California By whom made Western Pipe & Steel Co. Boiler No. L.A. When made 1941

Nominal Horse Power 505 Owners British Government Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Lukens Steel Co., Bethlehem Steel Co., Taylor Pipe & Forge Works (Letter for Record)

Total Heating Surface of Boilers (1) 2380 Sq. Ft. Is forced draught fitted Yes Coal or Oil fired Yes

No. and Description of Boilers one (1) Scotch Type Working Pressure 220 lbs.

Tested by hydraulic pressure to 380 lbs. Date of test 29th Nov. 1941 No. of Certificate 32 L.A. Can each boiler be worked separately

Area of Firegrate in each boiler 43 sq. ft. No. and Description of Safety valves to each boiler

Area of each set of valves per boiler { per Rule Pressure to which they are adjusted Are they fitted with easing gear

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 Is the bottom of the boiler insulated

Largest internal diameter of boilers 14' 6³/₁₆" Length 11' 6¹⁵/₁₆" Shell plates: Material Steel Tensile strength 65000/75000

Thickness 1¹³/₃₂" Are the shell plates welded or flanged No Description of riveting: circ. seams { end Double zigzag inter. ---

Long. seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 1¹/₂" Pitch of rivets { 4.24" 10"

Percentage of strength of circ. end seams { plate 64.7 Percentage of strength of circ. intermediate seam { plate None fitted rivets 47 rivets None fitted

Percentage of strength of longitudinal joint { plate 85.0 rivets 93.4 combined 88.8

Thickness of butt straps { outer 1³/₃₂" No. and Description of Furnaces in each Boiler Three (3) Morrison Type inner 1⁷/₃₂"

Material Steel Tensile strength 58000/68000 Smallest outside diameter 3' 5⁹/₁₆"

Length of plain part { top 9³/₁₆" Thickness of plates { crown 21/32 Description of longitudinal joint Welded bottom 9/16"

Dimensions of stiffening rings on furnace or c.c. bottom None fitted

End plates in steam space: Material Steel Tensile strength 58000/68000 Thickness 1¹/₃₂" R.D. 1 3/32" Pitch of stays 24¹/₄" x 21"

How are stays secured Double Nuts

Tube plates: Material { front Steel Tensile strength { 58000/68000 Thickness { 1¹/₃₂" F back Steel 58000/68000 1¹/₃₂" B

Mean pitch of stay tubes in nests 9⁷/₁₆" Pitch across wide water spaces 14¹/₂" x 8¹/₄"

Girders to combustion chamber tops: Material Steel Tensile strength 65000/75000 Depth and Thickness of girder

centre 10¹/₄"-2x7⁷/₈" Length as per Rule 2' 10" Distance apart 11" No. and pitch of stays

each 3 x 7⁵/₈" Combustion chamber plates: Material Steel

Tensile strength 58000/68000 Thickness: Sides 25/32" Back 23/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 9"x10⁷/₃₂" Back 9" x 9" Top 11" x 7⁵/₈" Are stays fitted with nuts or riveted over Nuts

Front plate at bottom: Material Steel Tensile strength 58000/68000

Thickness 1¹/₃₂" Lower back plate: Material Steel Tensile strength 58000/68000 Thickness 1¹/₃₂"

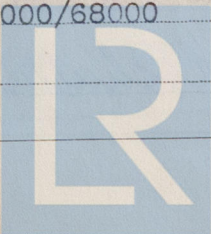
Pitch of stays at wide water space 15" x 9" Are stays fitted with nuts or riveted over Nuts

Main stays: Material Steel Tensile strength 65000/75000

Diameter { At body of stay 3¹/₂" No. of threads per inch Six (6) or 3⁵/₄"

crew stays: Material Steel Tensile strength 58000/68000

Diameter { At turned off part 1⁷/₈" No. of threads per inch Nine (9) or 1³/₄"



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

No. of threads per inch Nine (9)

Tubes: Material Steel Sol. Dr. External diameter { Plain 3" Stay 3" Thickness { 3.165" 5/16" No. of threads per inch Nine (9)

Pitch of tubes _____ 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 _____ 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 _____ 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 _____ 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 Yes

The foregoing is a correct description,
by E. J. Muelich ASST. SECRETARY Manufacturer

Dates of Survey { During progress of work in shops - - } 2nd Nov. to 29th Nov. 1941 Are the approved plans of boiler and superheater forwarded herewith Approved
while building { During erection on board vessel - - } _____ (If not state date of approval.) April 28th 1941

Total No. of visits 18

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. L.An. BLr. Rpt. No.1

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler, so far as stated above, has been built under Special Survey in accordance with the Rules and approved plans, and the workmanship and material is good. It has been satisfactorily tested to 380 lbs. per sq. inch by hydraulic pressure in the presence of the undersigned. It has been forwarded to Richmond, California, to be fitted on board, and when this has been done in accordance with the Rules, the vessel will be eligible, in my opinion, to receive the notation.

*LMC with date, and 220 lbs. and F. D. in the Register Book.

Survey Fee ... £ 108.61 : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

James A. Anderson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAY 13 1942

Assigned See Richmond Rpt. No. 12