

# REPORT ON BOILERS.

L.An.Blr.Rpt.  
No. L.A. 49

-8 SEP 1942

Received at London Office

Port of LOS ANGELES, CALIFORNIA

Survey held at LOS ANGELES, CALIFORNIA Date, First Survey 1st April Last Survey 28th April 19 42

on the BRITISH GOVERNMENT FREIGHTERS *5/5" Ocean Verity* (Number of Visits 16) Tons {Gross 7174 Net 4274

Richmond, Calif. By whom built Todd-California Shipbuilding Division Yard No. 24. When built 1942  
of the Permanent Metals Corporation.

made at Hamilton, Ohio. By whom made General Machinery Corp. Engine No. 6719. When made 1942.

made at Los Angeles, Calif. By whom made Western Pipe & Steel Co. Boiler No. 49 L.A. When made 1942

Net Horse Power 505. Owners British Government. Port belonging to London.

## WATER TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

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

Heating Surface of Boilers (1) 2380 sq. ft. Is forced draught fitted Yes Coal or Oil fired Yes

Description of Boilers one (1) Scotch Type Working Pressure 220 lbs.

Are drained by hydraulic pressure to 380 lbs. Date of test 27th Apr. 1942 No. of Certificate 49 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

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

Description of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Minimum distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

Minimum distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Internal diameter of boilers 14'6 3/16" Length 11'6 15/16" Shell plates: Material Steel Tensile strength 65000/75000

Thickness of shell plates 1 13/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end Double zigzag inter 4.25"

Material T.R.D.B.S. Diameter of rivet holes in {circ. seams 1 1/2" long. seams 1 1/2" Pitch of rivets {10" None fitted

Percentage of strength of circ. intermediate seam {plate None fitted rivets None fitted

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

Thickness of butt straps {outer 1 3/32" inner 1 7/32" No. and Description of Furnaces in each Boiler Three (3) Morrison Type

Material Steel Tensile strength 58000/68000 Smallest outside diameter 3'5 9/16"

Thickness of plates {crown 21/32 bottom 21/32 Description of longitudinal joint Welded

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

Material Steel Tensile strength 58000/68000 Thickness 1 1/32" RD 1 1/32" Pitch of stays 21 1/4" x 21"

Stays secured Double Nuts

Material {front Steel Tensile strength 58000/68000 Thickness 1 1/32" F back Steel Tensile strength 58000/68000 Thickness 1 3/16" B

Pitch across wide water spaces 14 1/2" x 8 1/4"

Material Steel Tensile strength 65000/75000 Depth and Thickness of girder 10 1/4"-2 x 7/8"

Length as per Rule 2' 10" Distance apart 11" No. and pitch of stays 3 x 7 5/8"

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

Stays to ditto: Sides 9" x 10 7/32" Back 9" x 9" Top 11" x 7 5/8" Are stays fitted with nuts or riveted over Nuts

Material Steel Tensile strength 58000/68000 Thickness 1 1/32"

Lower back plate: Material Steel Tensile strength 58000/68000 Thickness 1 1/32"

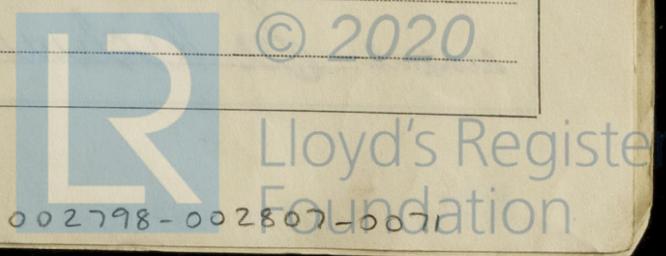
Stays at wide water space 15" x 9" Are stays fitted with nuts or riveted over Nuts

Material Steel Tensile strength 65000/75000

At body of stay 3 1/2" No. of threads per inch Six (6)

Over threads 3 3/4" Material Steel Tensile strength 58000/68000

At turned off part 1 7/8" 1 3/4" No. of threads per inch Nine (9)



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Are the stays drilled at the outer ends No Margin stays: Diameter  $\left\{ \begin{array}{l} \text{At turned off part} \\ \text{or} \\ \text{Over threads} \end{array} \right. 2\frac{1}{8}"$

No. of threads per inch Nine (9)

Tubes: Material Steel Sol. Dr. External diameter  $\left\{ \begin{array}{l} \text{Plain} \\ \text{Stay} \end{array} \right. 3"$  Thickness  $\left\{ \begin{array}{l} .165" \\ 3/8" \\ 5/16" \end{array} \right.$  No. of threads per inch Nine

Pitch of tubes 4 1/4" x 4 1/8" Manhole compensation: Size of opening

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  $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right.$

Internal diameter Thickness of crown No. and diameter of rivets

stays Inner radius of crown

How connected to shell Size of doubling plate under dome Diameter of rivet holes

of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of  $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{array} \right.$

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off from the boiler

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 drains by hydraulic test

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,  
 WESTERN PIPE & STEEL COMPANY OF CALIFORNIA  
 by J. Muelich ASST. SECRETARY

Dates of Survey  $\left\{ \begin{array}{l} \text{During progress of work in shops} \\ \text{while building} \end{array} \right. \left\{ \begin{array}{l} \text{During erection on board vessel} \end{array} \right.$

1st April to 28th April, 1942 Are the approved plans of boiler and superheater forwarded herewith Yes

(If not state date of approval.) April 28, 1941

Total No. of visits 16

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. L.An.Bl.r.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 square 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, 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 Muelich  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute NEW YORK AUG 26 1942

Assigned See Richmond Rpt. No. 24

