

# REPORT ON BOILERS.

L. An. BLR. Rpt. No. 20 L.A.

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Port of LOS ANGELES, CALIFORNIA  
 Survey held at LOS ANGELES, CALIFORNIA Date, First Survey 27th August Last Survey 29th Oct. 1941  
 on the BRITISH GOVERNMENT FREIGHTERS (Number of Visits 23)  
 By whom built \_\_\_\_\_ Yard No. \_\_\_\_\_ When built \_\_\_\_\_  
 By whom made \_\_\_\_\_ Engine No. \_\_\_\_\_ When made \_\_\_\_\_  
 made at Los Angeles, Calif. By whom made Western Pipe & Steel Co. Boiler No. 20 L.A. When made 1941  
 Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

## TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Suppliers 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 draught hydraulic pressure to 380 lbs. Date of test 28th Oct. 1941 No. of Certificate 20 L.A. Can each boiler be worked separately \_\_\_\_\_  
 Firegrate in each boiler 43 Sq. Ft. No. and Description of Safety valves to each boiler \_\_\_\_\_  
 each set of valves per boiler { per Rule \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_  
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler \_\_\_\_\_

Distance between boilers or uptakes and bunkers or woodwork \_\_\_\_\_ Is oil fuel carried in the double bottom under boilers \_\_\_\_\_  
 distance between shell of boiler and tank top plating \_\_\_\_\_ Is the bottom of the boiler insulated \_\_\_\_\_  
 internal diameter of boilers 14' 6<sup>3</sup>/<sub>16</sub>" Length 11-9' Shell plates: Material Steel Tensile strength 65000/75000  
1<sup>13</sup>/<sub>32</sub>" Are the shell plates welded or flanged No Description of riveting: circ. seams { end Double zigzag  
 inter. \_\_\_\_\_

T.R.D.B.S. Diameter of rivet holes in { circ. seams 1<sup>1</sup>/<sub>2</sub>" Pitch of rivets { 4.24"  
 long. seams 1<sup>1</sup>/<sub>2</sub>" { 10"  
 of strength of circ. end seams { plate 64.7 Percentage of strength of circ. intermediate seam { plate None fitted  
 rivets 47 rivets None fitted  
 of strength of longitudinal joint { plate 85.0  
 rivets 93.4  
 combined 88.8

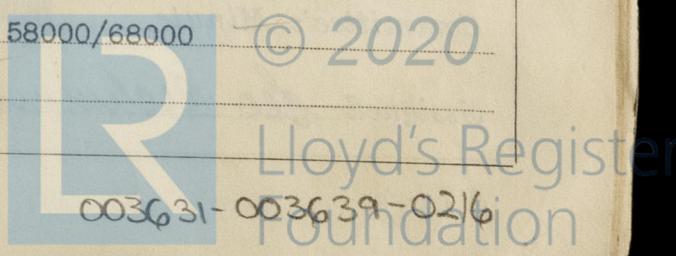
No. and Description of Furnaces in each Boiler Three (3) Morrison Type  
 Steel Tensile strength 58000/68000 Smallest outside diameter 3' 5<sup>9</sup>/<sub>16</sub>"  
 of plain part { top 9<sup>5</sup>/<sub>16</sub>" Thickness of plates { crown 2<sup>1</sup>/<sub>32</sub>" Description of longitudinal joint Welded  
 bottom 9<sup>3</sup>/<sub>16</sub>" { bottom 2<sup>1</sup>/<sub>32</sub>"  
 of stiffening rings on furnace or c.c. bottom None fitted

plates in steam space: Material Steel Tensile strength 58000/68000 Thickness 1<sup>1</sup>/<sub>32</sub>" R.D. 1<sup>1</sup>/<sub>32</sub>" Pitch of stays 24<sup>1</sup>/<sub>4</sub>" x 21"  
 stays secured Double Nuts  
 plates: Material { front Steel Tensile strength { 58000/68000 Thickness { 1<sup>1</sup>/<sub>32</sub>" F  
 back Steel { 58000/68000 { 1<sup>3</sup>/<sub>16</sub>"  
 pitch of stay tubes in nests 9<sup>7</sup>/<sub>16</sub>" Pitch across wide water spaces 14<sup>1</sup>/<sub>2</sub>" x 8<sup>1</sup>/<sub>4</sub>"

to combustion chamber tops: Material Steel Tensile strength 65000/75000 Depth and Thickness of girder  
10<sup>1</sup>/<sub>4</sub>"-2<sup>7</sup>/<sub>8</sub>" Length as per Rule 2' 10" Distance apart 11" No. and pitch of stays  
3 x 7<sup>5</sup>/<sub>8</sub>"  
 strength 58000/68000 Thickness: Sides 2<sup>5</sup>/<sub>32</sub>" Back 2<sup>3</sup>/<sub>32</sub>" Top 2<sup>5</sup>/<sub>32</sub>" Bottom 2<sup>5</sup>/<sub>32</sub>"  
 stays to ditto: Sides 9" x 10<sup>7</sup>/<sub>32</sub>" Back 9" x 9" Top 11" x 7<sup>5</sup>/<sub>8</sub>" Are stays fitted with nuts or riveted over Nuts

plate at bottom: Material Steel Tensile strength 58000/68000  
1<sup>1</sup>/<sub>32</sub>" Lower back plate: Material Steel Tensile strength 58000/68000 Thickness 1<sup>1</sup>/<sub>32</sub>"  
 stays at wide water space 18" x 10" 15" x 9" Are stays fitted with nuts or riveted over Nuts

stays: Material Steel Tensile strength 65000/75000  
 { At body of stay 3<sup>1</sup>/<sub>2</sub>"  
 { Over threads 3<sup>3</sup>/<sub>4</sub>" No. of threads per inch Six (6)  
 stays: Material Steel Tensile strength 58000/68000  
 { At turned off part 1<sup>7</sup>/<sub>8</sub>" 1<sup>3</sup>/<sub>4</sub>"  
 { Over threads 1<sup>7</sup>/<sub>8</sub>" 1<sup>3</sup>/<sub>4</sub>" No. of threads per inch Nine (9)



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

No. of threads per inch None (9) Tubes: Material Steel Sol. Dr. External diameter { Plain 3" Stay 3" Thickness { .165" 5/8" 5/16" No. of threads per inch N

Pitch of tubes 4 1/4" x 4 1/8" 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 { Flange Rivets

Internal diameter Thickness of crown No. and 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 { 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 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

tubes forgings and castings and after assembly in place 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 F. Muelch ASST. SECRETARY

Dates of Survey { During progress of work in shops - - 27th Aug. to 29th Oct. 1941 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 28th April Total No. of visits 23

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 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. inc. 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 ... £ 335-83 : When applied for, 21/4/42 19 42 Travelling Expenses (if any) £ : : When received, 19

James Anderson Engineer Surveyor to Lloyd's Register of

Committee's Minute NEW YORK MAR 18 1942 Assigned See Richmond Rpt. No. 9

