

# REPORT ON BOILERS.

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

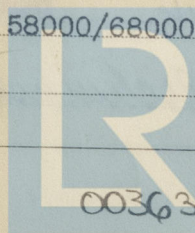
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Port of LOS ANGELES, CALIFORNIA  
Survey held at LOS ANGELES, CALIFORNIA Date, First Survey 27th August Last Survey 29th Oct. 1941  
on the BRITISH GOVERNMENT FREIGHTERS (Number of Visits 23)  
By whom built \_\_\_\_\_ Yard No. \_\_\_\_\_ When built \_\_\_\_\_  
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.

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 drawn 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 \_\_\_\_\_  
Description, if donkey boilers, state whether steam from main boilers can enter the donkey boiler \_\_\_\_\_  
Main 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  
of butt straps { outer 1<sup>3</sup>/<sub>32</sub>" No. and Description of Furnaces in each Boiler Three (3) Morrison Type  
inner 1<sup>1</sup>/<sub>32</sub>" 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>" None fitted  
of stiffening rings on furnace or c.c. bottom \_\_\_\_\_  
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>" Combustion chamber plates: Material Steel  
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>" No. of threads per inch Nine (9)  
Over threads 1<sup>7</sup>/<sub>8</sub>" 1<sup>3</sup>/<sub>4</sub>"



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Are the stays drilled at the outer ends No

No. of threads per inch None (9)

Margin stays: Diameter { At turned off part, 2 1/8"  
or  
Over threads.

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"

Manhole compensation: Size of 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 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 \_\_\_\_\_ Hydraulic test 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  
WESTERN PIPE & STEEL COMPANY OF CALIFORNIA  
by F. M. Muelbach 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

while building { During erection on board vessel - - } \_\_\_\_\_

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.A.n 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, 24/4/1942

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

Committee's Minute NEW YORK MAR 18 1942

Assigned See Richmond Rpt. No 9

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



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