

# REPORT ON BOILERS.

L.An. BIR. RPT.  
No. 16 L.A.

Received at London Office 10 APR 1942

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

No. in Reg. Book Survey held at LOS ANGELES, CALIFORNIA Date, First Survey 22nd July 1941 Last Survey 27th September 1941

on the BRITISH GOVERNMENT FREIGHTERS (Number of Visits 21) Tons { Gross Net

Built at By whom built Yard No. When built

Engines made at By whom made Engine No. When made

Boilers made at Los Angeles, California By whom made Western Pipe & Steel Co. Boiler No 16 L.A. When made 1941

Nominal Horse Power Owners Port belonging to

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

Manufacturers of Steel Luckens Steel Co., Bethlehem Steel Co., Taylor Pk (Letter for Record)

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

No. and Description of Boiler One (1) Scotch Type Working Pressure 220 lbs.

Tested by hydraulic pressure to 380 lbs. Date of test 27th Sept. 1941 of Certificate 16 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 as fitted 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' 6 3/16" Length 11' 6 15/16" Shell plates: Material Steel Tensile strength 65000/ 75000

Thickness 1 13/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end Double zigzag inter. 4.25" 10"

Long. seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 1 1/8" long. seams 1 1/8" Pitch of rivets { 4.25" 10"

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

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

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"

Length of plain part { top 9 3/16" bottom 9 3/16" Thickness of plates { crown 21/32" bottom 21/32" Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material Steel Tensile strength 58000/ 68000 Thickness 1 1/32" R.D. 1 1/32" Pitch of stays 41 1/4" x 21"

How are stays secured Double Nuts

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

Mean pitch of stay tubes in nests 9 7/16" Pitch across wide water spaces 14 1/2" x 8 1/4"

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

at centre 10 1/4" - 2 x 7/8" Length as per Rule 2' 10" Distance apart 11" No. and pitch of stays

in each 3 x 7 5/8" 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" x 10 7/32" Back 9" x 9" Top 11" x 7 5/8" Are stays fitted with nuts or riveted over Nuts

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

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

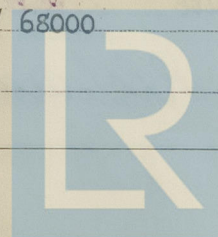
Pitch of stays at wide water space 16" x 10" 15" x 9" Are stays fitted with nuts or riveted over Nuts

Main stays: Material Steel Tensile strength 65000/ 75000

Diameter { At body of stay 3 1/2" or 3 3/4" No. of threads per inch Six (6)

Screw stays: Material Steel Tensile strength 58000/ 68000

Diameter { At turned off part or 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 At turned off part  
or  
Over threads 2 1/8" 2"  
No. of threads per inch Nine (9)  
Tubes: Material Steel Sol. Dr. External diameter 3" Thickness .165" No. of threads per inch Nine (9)  
3/8" 5/16"  
Pitch of tubes 4 1/4" x 4 1/8" 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 Plates  
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

WESTERN PIPE & STEEL COMPANY OF CALIFORNIA

The foregoing is a correct description,

ASST. SECRETARY Manufacturer.

Dates of Survey During progress of 22nd July 1941 to 27th Sept. 1941 Are the approved plans of boiler and superheater forwarded herewith Approved  
work in shops - - (If not state date of approval.) April 28, 1941  
while building During erection on Total No. of visits 21  
board vessel - - -

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 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 \*IMC with date, and 220 lbs. and F. D. in the Register Book. It has been satisfactorily tested  
to 380 lbs. per square inch by hydraulic pressure in the presence of the undersigned.

Survey Fee See rpt No. 13 When applied for, 19  
Travelling Expenses (if any) £ When received, 19

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

Committee's Minute NEW YORK FEB 11 1942

Assigned See Richmond Rpt. No. 6



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