

REPORT ON BOILERS.

L.An. BLR. Rpt.
No. 23 L.A.

Received at London Office 5.9 MAY 1942

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

Survey held at LOS ANGELES, CALIFORNIA Date, First Survey 7th Sept. Last Survey 31st Oct. 1941

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

By whom built _____ Yard No. _____ When built _____

made at _____ By whom made _____ Engine No. _____ When made _____

made at Los Angeles, Calif. By whom made Western Pipe & Steel Co. Boiler No. 23 L.A. When made 1941

Horse Power _____ Owners _____ Port belonging to _____

CITUBULAR 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 driven by hydraulic pressure to 380 lbs. Date of test 31st Oct. 1941 of Certificate 23 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 _____

For 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 _____

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

Thickness of shell plates 1¹³/₃₂" 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 1¹/₂" Pitch of rivets { 4.24"
long. seams 1¹/₂" { 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 1³/₃₂" inner 1⁷/₃₂" No. and Description of Furnaces in each Boiler Three (3) Morrison Type

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

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

Are stays of stiffening rings on furnace or c.c. bottom None fitted

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

Are stays secured Double Nuts

Material of stays: Material { front Steel back Steel Tensile strength { 58000/68000 Thickness { 1¹/₃₂" F
1³/₁₆" B

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

Material of combustion chamber tops: Material Steel Tensile strength 65000/75000 Depth and Thickness of girder 10¹/₄" - 2 x 7⁷/₈"

Length as per Rule 2' 10" Distance apart 11" No. and pitch of stays 3 x 7⁵/₈"

Combustion chamber plates: Material Steel

Thickness: Sides 25³/₃₂" Back 23³/₃₂" Top 25³/₃₂" Bottom 25³/₃₂"

Are stays fitted with nuts or riveted over Nuts

Material of stays at bottom: Material Steel Tensile strength 58000/68000

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

Are stays at wide water space 18" x 10" 15" x 9" Are stays fitted with nuts or riveted over Nuts

Material of stays: Material Steel Tensile strength 65000/75000

At body of stay 3¹/₂" No. of threads per inch Six (6)

Over threads 3³/₄"

Material of stays: Material Steel Tensile strength 58000/68000

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

Over threads 1⁷/₈" 1³/₄"

5-4 23.L.A.

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

No. of threads per inch None (9)

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

Pitch of tubes 4¹/₄" x 4¹/₈" 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 $\left\{ \begin{array}{l} \text{Flats} \\ \text{Rivets} \end{array} \right. \underline{\hspace{2cm}}$

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 hole _____

of rivets in outer row in dome connection to shell _____

Type of Superheater _____ Manufacturers of $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{array} \right. \underline{\hspace{2cm}}$

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 _____ Are drums 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, for m
WESTERN PIPE & STEEL COMPANY OF CALIFORNIA
by J. M. Neesh ASST. SECRETARY

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of work in shops} \\ \text{while building} \end{array} \right. \left\{ \begin{array}{l} \text{During erection on board vessel} \end{array} \right. \underline{7th Sept. to 31st Oct. 1941}$ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 28th Apr

Total No. of visits 21

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. in. 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 £ 20 L.A. 20 } When applied for, _____ 19 _____
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

