

REPORT ON BOILERS.

No. 16297

Received at London Office 13 APR 1929

Date of writing Report *12.4.1929* When handed in at Local Office *12.4.1929* Port of *Grimsby*

No. in Survey held at *Lincoln* Date, First Survey *5-2-29* Last Survey *H 4 1929*

Reg. Book on the (Number of Visits *9*) Gross Tons Net

Built at *Yokohama* By whom built *Yokohama Dock Co.* Yard No. *7* When built

Engines made at By whom made Engine No. When made

Boilers made at *Lincoln* By whom made *Babcock & Wilcox Ltd* Boiler No. *734594* When made *1929*

Owners Port belonging to

VERTICAL DONKEY BOILER.

Made at *Lincoln* By whom made *Babcock & Wilcox Ltd* Boiler No. *734594* When made *1929* Where fixed -

Manufacturers of Steel *Parkgate I.S. Co. Ltd.*

Total Heating Surface of Boiler *350 sq ft.* Is forced draught fitted Coal or Oil fired *oil & coal*

No. and Description of Boilers *one, Clarke's waste heat.* Working pressure *100 lb.*

Tested by hydraulic pressure to *200 lb.* Date of test *22nd March 1929* No. of Certificate *262*

Area of Firegrate in each Boiler *40* No. and Description of safety valves to each boiler *Two Spring loaded*

Area of each set of valves per boiler { per rule *4.56* as fitted *6.28* Pressure to which they are adjusted - Are they fitted with easing gear -

State whether steam from main boilers can enter the donkey boiler - Smallest distance between boiler or uptake and bunkers or woodwork - Is oil fuel carried in the double bottom under boiler - Smallest distance between base of boiler and tank top plating Is the base of the boiler insulated - Largest internal dia. of boiler *5'-0"* Height *8'-3 7/8"*

Shell plates: Material *S. L. steel* Tensile strength *28/32 T.* Thickness *7/16"*

Are the shell plates welded or flanged *D.R. Lap.* Description of riveting: circ. seams { end *S.R. & D.R. Lap* inter. *S.R. Lap.* long. seams *D.R. Lap.*

Dia. of rivet holes in { circ. seams *13/16"* Pitch of rivets { *1 7/8" & 2 5/8"* Percentage of strength of circ. seams { plate *57.69* rivets *52.74* of Longitudinal joint { plate *69* rivets *74* combined *75*

Working pressure of shell by rules *133 lb.* Thickness of butt straps { outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat *Flat* Material *S. L. steel*

Tensile strength *26/30 T.* Thickness *5/8"* Radius - Working pressure by rules *230 lb.*

Description of Furnace: Plain, spherical, or dished crown *dished* Material *S. L. steel* Tensile strength *26/30 T.*

Thickness *13/16"* External diameter { top *4'-1 1/2"* Length as per rule *5'-2 1/2"* Working pressure by rules *112 lb.* bottom *4'-1 5/8"*

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread - Radius of spherical or dished furnace crown *3'-8"* Working pressure by rule *117 lb.*

Thickness of Ogee Ring *7/8"* Diameter as per rule { D *4'-11 5/8"* Working pressure by rule *18182 lb.* a *4'-1 5/8"*

Combustion Chamber: Material Tensile strength Thickness of top plate

Radius if dished Working pressure by rule Thickness of back plate Diameter if circular

Length as per rule Pitch of stays Are stays fitted with nuts or riveted over

Diameter of stays over thread Working pressure of back plate by rules

Tube Plates: Material { front back Tensile strength Thickness Mean pitch of stay tubes in nests

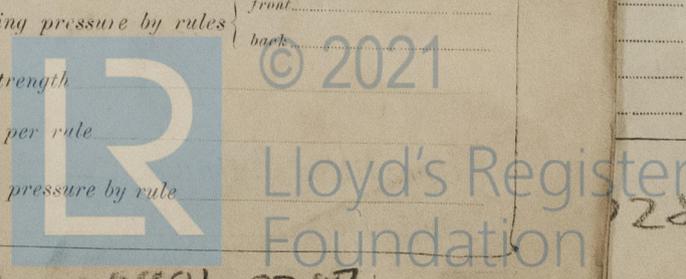
If comprising shell, Dia. as per rule { front back Pitch in outer vertical rows { Dia. of tube holes FRONT { stay plain BACK { stay plain

Is each alternate tube in outer vertical rows a stay tube Working pressure by rules { front back

Girders to combustion chamber tops: Material Tensile strength

Depth and thickness of girder at centre Length as per rule

Distance apart No. and pitch of stays in each Working pressure by rule



Crown stays: Material _____ Tensile strength _____ Diameter $\left\{ \begin{array}{l} \text{at body of stay} \\ \text{or} \\ \text{over threads} \end{array} \right.$ _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter $\left\{ \begin{array}{l} \text{at turned off part} \\ \text{or} \\ \text{over threads} \end{array} \right.$ _____ No. of threads per inch _____
 Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Tubes: Material *S. G. Steel* External diameter $\left\{ \begin{array}{l} \text{plain} \dots 3 \frac{1}{2} \\ \text{stay} \dots \end{array} \right.$ Thickness *6 B.W.G.*
 No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____

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 _____

Uptake: External diameter _____ Thickness of uptake plate _____

Cross Tubes: No. _____ External diameters $\left\{ \begin{array}{l} \dots \\ \dots \end{array} \right.$ Thickness of plates _____

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with _____

The foregoing is a correct description,

JABCOCK & WILCOX LTD

(Lincoln Branch),

Manufacturer.

Annual Survey Request

J. J. Lewis

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of work in shops} \dots 1929 \text{ Feb 5-13 \& Mar 7-8-15} \\ \text{while building} \dots \end{array} \right.$ *1929 Feb 5-13 \& Mar 7-8-15*

Is the approved plan of boiler forwarded herewith (If not state date of approval.) *yes with plan*

Total No. of visits *9*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey and in accordance with the Rules and approved plan. The materials and workmanship are good. This boiler has now been despatched to Yokohama.

Survey Fee ... £ *4:4:0*
 Travelling Expenses (if any) £ *18/5*

When applied for, *27.3.19*
 When received, *30.4.19*

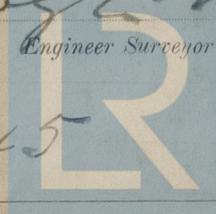
W. J. C. King

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned

FRI, 17 JAN 1930

See YKa J.E. 4445



Lloyd's Register Foundation