

REPORT ON BOILERS.

No. 16298.
KANNO 4501.

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copy

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Port of *Yokohama*

YOKOHAMA 7/12/29

6-3-30.

No. in Reg. Book

Survey held at *Lincoln & Yokohama*

Date, First Survey 5/2/29

Last Survey 4.4.29 19

on the *Steel Screw Motor Vessel "MELBOURNE MARU"*

(Number of Visits *9+3=12*)
Gross Tons *5434*
Net Tons *3234*

Built at *Yokohama* By whom built *Yokohama Dock Co* Yard No. *174* When built *1930*
 Engines made at *Copenhagen* By whom made *Burmeister & Wain, Ltd* Engine No. *174* When made *1930*
 Boilers made at *Lincoln* By whom made *Babcock & Wilcox Ltd* Boiler No. *73/4595* When made *1929*
 Owners *Osaka Shoen Kabushiki Kaisha* Port belonging to *Osaka*

VERTICAL DONKEY BOILER.

Made at *Lincoln* By whom made *Babcock & Wilcox Ltd* Boiler No. *73/4595* When made *1929* Where fixed *Yokohama*

Manufacturers of Steel *Partgate Ltd. Ltd.*

Total Heating Surface of Boiler *350 sq* Is forced draught fitted *no.* Coal or Oil fired *oil & kerosene*

No. and Description of Boilers *One, Clarkson, Waste Heat* Working pressure *100 lbs*

Tested by hydraulic pressure to *200 lb* Date of test *27 March 1929* No. of Certificate *266*

Area of Firegrate in each Boiler _____ 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 *100 lbs.* Are they fitted with easing gear *yes*

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.M. Steel* Tensile strength *28/32* Thickness *7/16"*

Are the shell plates welded or flanged *DR. lap* Description of riveting: circ. seams { end *SR + DR. lap* long. seams *SR. lap*

Dia. of rivet holes in { circ. seams *1 3/16* long. seams *1 3/16* Pitch of rivets { *1 3/8" x 2 5/8"* Percentage of strength of circ. seams { plate *57.6%* rivets *52.7%* 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.M. 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.M. Steel* Tensile strength *26/30 T*

Thickness *1 3/16"* External diameter { top *4'-15 3/8"* bottom _____ Length as per rule *5'-2 1/2"* Working pressure by rules *112 lb*

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 3/8"* *d 4'-15 3/8"* Working pressure by rule *182 lb*

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 _____

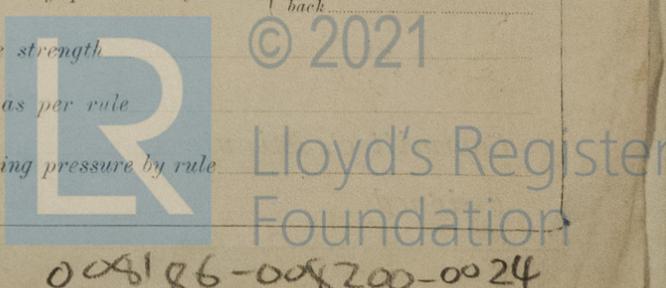
If comprising shell, Dia. as per rule { front _____ back _____ Pitch in outer vertical rows { _____ Dia. of tube holes FRONT { stay _____ plain _____ BACK { stay _____ plain _____

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 ^{at body of stay,} _____ _{or} _____ _{over threads.}

No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter ^{at turned off part,} _____ _{or} _____ _{over threads.} No. of threads per inch _____

Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Tubes: Material _____ External diameter ^{plain} $3\frac{1}{2}$ _____ _{stay} _____ Thickness ^{6 BWG} _____

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 _____ Thickness of plates _____

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

The foregoing is a correct description,

H. Babcock & Wilcox (Lincoln Branch) Manufacturer.

Annual Survey Request

Dates of Survey while building	During progress of work in shops - -	1929 Feb. 5, 13, 22, 26	Mar. 1, 8, 15 - Is the approved plan of boiler forwarded herewith (If not state date of approval.)	Yes
		7/12/29, 24/1/30, 6/3/30		
	During erection on board vessel - -	27. Apr. 4.	Total No. of visits	9 + 3 = 12.

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 & workmanship are good.

The boiler has been despatched to Yokohama.

This case is a duplicate of Ins. Rpt. No 16297 Yokohama. This boiler has been securely fitted aboard this vessel and the boiler examined under steam. Safety valves adjusted under steam to 100 lbs per sq. inch and accumulation test carried out. all found satisfactory.

Survey Fee £ : :) When applied for, 19

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

Committee's Minute
Assigned

FRI. 2 MAY 1930

See F.E. Rpt

W. G. McKeen (Signature)
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation