

REPORT ON BOILERS.

No. 16302
/KANo. 4531.

Received at London Office

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Date of writing Report 12. 4. 1929 When handed in at Local Office 12. 4. 1929 Port of Yokohama

No. in Reg. Book 175 Survey held at Lincoln Yokohama Date, First Survey 5. 2. 29 Last Survey 4. 4. 29
on the Steel Screw M.V. BRISBANE MARU (Number of Visits 8+4 Gross 5425 Tons Net 3229)

Built at Yokohama By whom built Yokohama S.K. Co Yard No. 175 When built 1930
Engines made at Copenhagen By whom made Burmister & Wain, Ltd. Engine No. 1598 When made 1930
Boilers made at Lincoln By whom made Babcock & Wilcox Boiler No. 73/4596 When made 1929
Owners Osaka & Hosen Kaishiki Kaisha. Port belonging to Osaka.

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Boiler No. 73/4596 When made 1929 Where fixed Yokohama.

Manufacturers of Steel Partgate S.S. Co. Ltd

Total Heating Surface of Boiler 350 sq ft Is forced draught fitted no. Coal or Oil fired oil & exhaust gas

No. and Description of Boilers One, Clarkson, waste heat Working pressure 100 lb.

Tested by hydraulic pressure to 200 lb Date of test 27th March 1929 No. of Certificate 267

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 lb 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 3/8"

Shell plates: Material S.M. Steel Tensile strength 28/32 T Thickness 7/16"

Are the shell plates welded or flanged S.R. lap Description of riveting: circ. seams SR lap end SR lap long. seams SR lap

Dia. of rivet holes in circ. seams 13/16" long. seams 13/16" Pitch of rivets 1 3/8" + 2 3/8" Percentage of strength of circ. seams 57.6% of Longitudinal joint 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 13/16" External diameter top 4'-1 1/8" bottom 4'-1 1/8" 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 - Working pressure by rule

Thickness of Ogee Ring 7/8" Diameter as per rule D 4'-11 1/8" d 4'-1 5/8" Working pressure by rule 182 lb.

Combustion Chamber: Material S.M. Steel Tensile strength 26/30 T. Thickness of top plate 1/2"

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 S.M. Steel Tensile strength 26/30 T. Thickness 1/2" Mean pitch of stay tubes in nests -

If comprising shell, Dia. as per rule front 4'-11 1/8" back 4'-1 5/8" Pitch in outer vertical rows - Dia. of tube holes FRONT stay 1 1/8" plain 1 1/8" BACK stay 1 1/8" plain 1 1/8"

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

Girders to combustion chamber tops: Material S.M. Steel Tensile strength 26/30 T.

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 $\left\{ \begin{array}{l} \text{at body of stay,} \\ \text{or} \\ \text{over threads} \end{array} \right. \dots\dots\dots$
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter $\left\{ \begin{array}{l} \text{at turned off part} \\ \text{or} \\ \text{over threads} \end{array} \right. \dots\dots\dots$ 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 $\left\{ \begin{array}{l} \text{plain} \\ \text{stay} \end{array} \right. \dots\dots\dots$ Thickness $\left\{ \begin{array}{l} \\ \end{array} \right. \dots\dots\dots$
 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 $\left\{ \begin{array}{l} \\ \end{array} \right. \dots\dots\dots$ Thickness of plates _____

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

The foregoing is a correct description,

Annual Survey Request

H. Babcock & Wilcox Co. (London Branch) Manufacturer.

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of} \\ \text{work in shops} \end{array} \right. \dots\dots\dots$ Is the approved plan of boiler forwarded herewith $\left\{ \begin{array}{l} \text{If not state date of approval.} \\ \end{array} \right. \dots\dots\dots$
 while building $\left\{ \begin{array}{l} \text{During erection on} \\ \text{board vessel} \end{array} \right. \dots\dots\dots$ Total No. of visits $\left\{ \begin{array}{l} \\ \end{array} \right. \dots\dots\dots$

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 & Approved plan.*

The materials & workmanship are good.

This boiler has now been despatched to Yokohama.

This case is a duplicate of Gms Rpt. 16297

YOKOHAMA.

This boiler has now been securely fitted onboard this vessel and after fitting tried under steam and the safety valves adjusted to 100 lbs. Accumulation test carried out and no rise in pressure noted.

SEE MACHINERY REPORT.

Survey Fee £ : :) When applied for, 19
 Travelling Expenses (if any) £ : :) When received, 19

(5) *M. G. Mc. Kinlay & Co. Ltd.*
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 4 JUL 1930

Committee's Minute

Assigned *See F. E. Rpt.*

