

## REPORT ON BOILERS.

No. 652-B

Received at London Office

- 3 JUN 1952

Date of writing Report 12-3-1952 When handed in at Local Office 12-3-1952 Port of Yokohama

No. in Survey held at Yokohama, Japan Date, First Survey 28-8-51 Last Survey 15-2-1952

Reg. Book. on the Single Screw Vessel M.T. "Tokyo Maru" (Number of Visits 24)

Gross 6573.83  
Tons Net 3765.80

Built at Yokohama, Japan By whom built Yokohama Shipyard & Engine Works  
East Japan Heavy Industries Ltd. Yard No. 5781 When built 2-52

Engines made at Yokohama, Japan By whom made " Engine No. D3722 When made 12-51

Boilers made at Yokohama, Japan By whom made " Boiler No. 4338 When made 11-51

Owners Tokyo Senpaku Port belonging to Tokyo

## VERTICAL BOILER.

Made at Yokohama By whom made Yokohama Shipyard & Engine Works East Japan H.I. Ltd. Boiler No. 4338 When made 11-51 Where fixed ENGINE ROOM FORWARD, 2ND DECK

Manufacturers of Steel YAWATA WORKS, YAWATA IRON & STEEL CO. LTD.

Total Heating Surface of Boiler 61.7 m<sup>2</sup> Is forced draught fitted NO Coal or Oil fired OIL FIRED

No. and Description of Boilers 1- VERTICAL, OIL OR MAIN ENGINE EXHAUST GAS Working Pressure 7 kg/cm<sup>2</sup>

Tested by hydraulic pressure to 14 kg/cm<sup>2</sup> Date of test 22-11-1951 No. of Certificate Y2455

Area of fire grate in each Boiler - No. and description of safety valves to each boiler 1 SET OF TWO SPRING ORDINARY TYPE

Area of each set of valves per boiler { per Rule 46.6 cm<sup>2</sup> as fitted 56.5 cm<sup>2</sup> Pressure to which they are adjusted 7.2 kg/cm<sup>2</sup> Are they fitted with easing gear YES

State whether steam from main boilers can enter the donkey boiler NO- DONKEY BOILER ONLY Smallest distance between boiler or uptake and bunkers or woodwork 400 mm Is oil fuel carried in the double bottom under boiler NO Smallest distance between base of boiler and tank top plating 7200 mm

Is the base of the boiler insulated YES Largest internal dia. of boiler 1900 mm Height 5200 mm

Shell plates: Material O. H. STEEL Tensile strength 32.6-34.8 T/O Thickness 10 mm

Are the shell plates welded or flanged - If fusion welded, state name of welding firm -

Have all the requirements of the Rules for Class I vessels been complied with - Description of riveting: circ. seams { end SINGLE ROW LAP inter -

long. seams DOUBLE ROW Dia. of rivet holes in { circ. seams 20 mm Pitch of rivets { 50 mm Percentage of strength of circ. seams { plate 60% rivets 46.5%

of longitudinal joint { plate 75.8% rivets 73.5% Thickness of butt straps { outer 8 mm inner 10 mm Shell Crown: Whether complete hemisphere, dished partial

spherical, or flat DISHED PARTIAL SPHERICAL Material O. H. STEEL Tensile strength 26.6-29.8 T/O Thickness 19 mm (ACTUAL) 17 mm (DESIGN)

Radius 1500 mm Description of Furnace: Plain, spherical, or dished crown DISHED CROWN Material O. H. STEEL

Tensile strength 29.3 T/O Thickness 21 mm (ACTUAL) 20 mm (DESIGN) External diameter { top 874 mm bottom 1900 mm Length as per Rule -

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 1500 mm

Thickness of Ogee Ring - Diameter as per Rule { D - d -

Combustion Chamber: Material - Tensile strength - Thickness of top plate -

Radius if dished - 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 -

Tube Plates: Material { upper O. H. STEEL lower O. H. STEEL Tensile strength { 29.9 T/O Thickness { 17 mm (ACTUAL 19 mm) 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 { upper 51.8 mm lower 51.8 mm

Is each alternate tube in outer vertical rows a stay tube -

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 -



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

*The foregoing is a correct description,*

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1951:- AUG. 28 SEPT. 17, 20, OCT. 3, 8, 11, 15, 16, 18 19, 22, 23, 24, 26, 29, 30. NOV. 2, 6, 12, 20		Is the approved plan of boiler forwarded herewith (If not state date of approval.)	22-11-51
	During erection on board vessel - - -	1951:- NOV. 22 1952:- FEB. 2, 5, 15			
			Total No. of visits	24	

Is this Boiler a duplicate of a previous case. YES If so, state Vessel's name and Report No. M.V. JOZAN MARU

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

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THIS BOILER HAS BEEN CONSTRUCTED UNDER THE SUPERVISION OF THE SOCIETY'S SURVEYORS  
IN ACCORDANCE WITH THE APPROVED PLANS AND RULES.

ALL DETAILS HAVE BEEN FOUND SATISFACTORY.

THE QUALITY OF WORKMANSHIP AND MATERIALS HAVE BEEN FOUND SATISFACTORY.  
THE BOILER HAS BEEN SATISFACTORILY INSTALLED IN THE VESSEL AND EXAMINED UNDER  
STEAM AND THE SAFETY VALVE ADJUSTED AS STATED.

STEAM AND THE SAFETY VALVE ADJUSTED AS STATED.  
IT IS SUBMITTED THAT THIS BOILER IS ELIGIBLE TO BE CLASSED WITH SOCIETY WITH  
NOTATION OF DBS 2.52

			<i>See Rpt 4b</i>		
Survey Fee ...	£	:	:	}	When applied for ..... 19
Travelling Expenses (if any) £	:	:			When received ..... 19

Engineer Surveyor to Lloyd's Register of Shipping.

FRI, 27 JUN 1952

Date \_\_\_\_\_  
Committee's \_\_\_\_\_  
Minute \_\_\_\_\_  
See F.E. Mucky apt.

Lloyd's Register  
Foundation