

# REPORT ON BOILERS.

VERTICAL

No. FE-5921

Received at London Office

Date of writing Report 18th July 1958 When handed in at Local Office 19 Port of KOBE

No. in Survey held at Tamano, Japan Date, First Survey 10th January Last Survey 14th July 1958.  
eg. Book. on the M.V. "MEGUROSAN MARU" (Number of Visits 22) Gross 9,565.69 Tons Net 5,900.38

built at Tamano, Japan By whom built Mitsui S.B. & Eng. Co., Ltd. Yard No. 630 When built 1958-July  
engines made at Tamano, Japan By whom made Mitsui S.B. & Eng. Co., Ltd. Engine No. 720 When made 1958-July  
boilers made at Tamano, Japan By whom made Mitsui S.B. & Eng. Co., Ltd. Boiler No. 442 When made 1958-July  
owners Mitsui Steamship Co., Ltd. Port belonging to Tokyo

## VERTICAL BOILER.

made at Tamano By whom made Mitsui S.B. & Eng. Co., Ltd. Boiler No. 442 When made 1958-July Where fixed Boiler room port in engine room  
Plates: Yawata Iron & Steel Co., Ltd.  
Manufacturers of Steel Tubes: Sumitomo Metal Ind., Tube Works Amagasaki & Wakayama  
Total Heating Surface of each Boiler 53.8 M<sup>2</sup> Is forced draught fitted Yes Coal or Oil fired Oil  
No. and Description of Boilers 1 Vertical cochran type Working Pressure 7 kg/cm<sup>2</sup>  
tested by hydraulic pressure to 14 kg/cm<sup>2</sup> Date of test 14th April, 1958 No. of Certificate I-450926 Kobe  
Area of fire grate in each Boiler - No. and description of safety valves to each boiler 1 set double spring ordinary type  
Area of each set of valves per boiler { per Rule 50.9mm x 2 Pressure to which they are adjusted 7.1 kg/cm<sup>2</sup> are they fitted with easing gear Yes  
as fitted 6.5mm x 2  
Material of grate whether steam from main boilers can enter the donkey boiler - Smallest distance between boiler or uptake and bunkers  
woodwork - Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating  
Is the base of the boiler insulated Yes Largest internal dia. of boiler 2100mm Height 5250mm  
Shell plates: Material O.H. Steel Tensile strength 46.3 - 50.0 kg/mm<sup>2</sup> Thickness 12mm  
Are the shell plates welded or flanged Welded If fusion welded, state name of welding firm Mitsui S.B. & Eng. Co., Ltd.  
Have all the requirements of the Rules for Class I vessels been complied with Yes Description of riveting: circ. seams { end - inter -  
Long. seams - Dia. of rivet holes in { circ. seams - Pitch of rivets { Thickness of butt straps { outer - inner -  
long. seams - Dished partial 45.6 kg/mm<sup>2</sup>  
Spherical Material O.H.S. Tensile strength 46.2 Thickness 16mm  
Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Spherical Material O.H. Steel  
Radius 1.550mm Description of Furnace: Plain, spherical, or dished crown Spherical crown  
Tensile strength 42.2-42.3 kg/mm<sup>2</sup> Thickness 12mm External diameter { top - 1800mm Length as per Rule -  
bottom - 1800mm  
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 888mm  
Thickness of Ogee Ring 22mm Diameter as per Rule { D 2100mm  
d 2020.7mm  
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 { front O.H. Steel Tensile strength 42.2-42.4 kg/mm<sup>2</sup> Thickness 32mm Mean pitch of stay tubes in nests 270x285mm  
back 46.6-46.9 " Thickness 27mm  
comprising shell, dia. as per Rule { front - Pitch in outer vertical rows { 180mm Dia. of tube holes FRONT { stay 71mm BACK { stay 65mm  
back - 180mm plain 65mm  
each alternate tube in outer vertical rows a stay tube - Tensile strength -  
Orders to Combustion Chamber Tops: Material - Length as per Rule -  
Pitch and thickness of girder at centre - No. and pitch of stays in each -  
Distance apart -

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**Crown Stays:** Material - Tensile strength - Diameter { at body of stay, - or over threads -

**No. of threads per inch** - **Screw Stays:** Material - Tensile strength - Date of writing -

Diameter { at turned off part, - or over threads - No. of threads per inch - Are the stays drilled at the outer ends -

**Tubes:** Material O.H. Steel External diameter { plain 65mm stay 65mm Thickness { 3.5mm 8mm

No. of threads per inch 9 Pitch of tubes 90 x 95mm

**Manhole Compensation:** Size of opening in shell plate 390 x 515mm Section of compensating ring 4761.78mm<sup>2</sup> No. of rivets and diameter -

of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 80mm

**Uptake:** External diameter 550mm Thickness of uptake plate 4.5mm

**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,  
MITSUI SHIPBUILDING & ENGINEERING CO., LTD., TAMANO WORKS

Manufactured at Tamano

1957: Aug. 23, Dec. 6, 24, 26  
1958: Jan. 10, 28, Feb. 7, 11, 13, 14, 24, March 10, 13, 14, 18, 20, 24, 28, April 4, 10, 14  
Is the approved plan of boiler forwarded herewith 9th Sept., 1957  
(If not state date of approval.)

Dates of Survey while building { During progress of work in shops - - - During erection on board vessel - - -

Total No. of visits 22

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "MOGAMISAN MARU", "MIKAGESAN MARU", "YOSHINOSAN MARU", "MANJUSAN MARU", "MUSASHI SAN MARU", "MAYASAN MARU"

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

The Donkey Boiler of this vessel has been constructed under Special Survey in accordance with the rules approved plans and Secretary's letters.

The workmanship and materials are sound and good.

The Donkey Boiler has been examined under steam and the safety valves adjusted to 7.1kg/cm<sup>2</sup> and found satisfactory.

Accumulation test were carried out with satisfactory results.

Survey Fee ... £24,000.- :  
Travelling Expenses (if any) £ See Rpt. 1

When applied for 19  
When received 19

R.D. Southwell  
Engineer Surveyor to Lloyd's Register of Shipping.

TUESDAY 21 OCT 1958

Date See Rpt. 1  
Committee's Minute



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