

# REPORT ON BOILERS.

No. FE-3816

Received at London on 10 SEP 1956

Date of writing Report 19... When handed in at Local Office AUG 29 1956 19... Port of KOBE

Survey held at Tamano, Japan Date, First Survey 2nd Dec., 1955 Last Survey 7th June, 1956

No. in Reg. Book. on the M.V. "MIKAGESAN MARU" (Number of Visits 12) Tons { Gross 7200.05 Net 4019.43

Built at Tamano, Japan By whom built Mitsui Shipbuilding & Engineering Co., Ltd. Yard No. 609 When built 1956-6

Engines made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Engine No. 607 When made 1956-6

Boilers made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 398 When made 1956-6

Owners Mitsui Steam Ship Co., Ltd. Port belonging to Tokyo.

## VERTICAL BOILER.

Made at Tamano By whom made Mitsui Shipbuilding & Eng., Co., Ltd. Boiler No. 398 When made 1956-6 Where fixed In funnel

Manufacturers of Steel Plates: Yawata Iron Steel Co. Ltd. Tubes: Sumitomo Metal Ind. Steel Tube works, Amagasaki.

Total Heating Surface of each Boiler 112.0 M<sup>2</sup> Is forced draught fitted Yes Coal or Oil fired Exhaust gas

No. and Description of Boilers 1: Smoke tube type exhaust gas boiler (vertical tube) Working Pressure 7 kg/cm<sup>2</sup>

Tested by hydraulic pressure to 14 kg/cm<sup>2</sup> Date of test 20-4-56 No. of Certificate I-32317

Area of fire grate in each Boiler - No. and description of safety valves to each boiler 1 set of double spring ordinal type

Area of each set of valves per boiler { per Rule 51.9mmx2 as fitted 65mmx2 Pressure to which they are adjusted 7.0 kg/cm<sup>2</sup> 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 No Smallest distance between base of boiler and tank top plating -

Is the base of the boiler insulated Yes Largest internal dia. of boiler 2,500mm Height 2,000mm

Shell plates: Material O.H. Steel Tensile strength 52.7 kg/mm<sup>2</sup> Thickness 12mm

Are the shell plates welded or flanged Welded If fusion welded, state name of welding firm Mitsui Shipbuilding & 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 - long. seams - Pitch of rivets { - Thickness of butt straps { outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat - Material - Tensile strength - Thickness -

Radius - Description of Furnace: Plain, spherical, or dished crown Material -

Tensile strength - Thickness - External diameter { top - bottom - 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 -

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 { Top O.H. Steel Bottom O.H. Steel Tensile strength { 44.2 kg/mm<sup>2</sup> Thickness { 22mm Mean pitch of stay tubes in nests 345x360mm

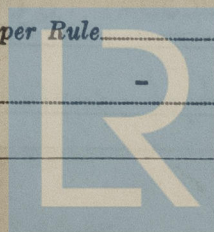
If comprising shell, dia. as per Rule { front - back - Pitch in outer vertical rows { - Dia. of tube holes FRONT { stop 96mm plain 93mm Bottom 88.9mm stop 88.9mm plain 88.9mm

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 -



© 2021

Lloyd's Register Foundation

011378-011385-0114



Crown Stays: Material - Tensile strength - Diameter { at body of stay, or over threads, -  
No. of threads per inch - Screw Stays: Material - Tensile strength -  
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 88.9mm stay 88.9mm Thickness { 8mm 4mm  
No. of threads per inch 9 Pitch of tubes 115mm  
Manhole Compensation: Size of opening in shell plate 405 x 505mm Section of compensating ring 5068.8mm<sup>2</sup> No. of rivets and diameter of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 60mm  
Uptake: External diameter 1000mm Thickness of uptake plate 6mm  
Cross Tubes: No. - External diameters { - Thickness of plates -

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

MITSUBISHI SHIPBUILDING & ENGINEERING CO., LTD., TAMANO WORKS.  
The foregoing is a correct description,  
for S. Tanaka  
Senior Managing Director

1955: Dec. 2, 1956: Jan. 26  
Dates of Survey while building { During progress of work in shops - - 1956: Feb. 3, 27, March 13, April 9, 12, 16, 17, 20, 23 Is the approved plan of boiler forwarded herewith 8 Dec., 1954 (If not state date of approval.)  
During erection on board vessel - - 1956: June, 7 Total No. of visits 12

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M.V. "HODAKASAN MARU" M.V. "MOGAMISAN MARU"

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
The Exhaust Gas 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 Exhaust Gas boiler has been examined under steam and the safety valves adjusted to 7.0 kg/cm<sup>2</sup> and found satisfactory.  
Accumulation tests carried out with satisfactory results.

Survey Fee ... £ 30.000 When applied for 19 AUG. 21, 1956  
Travelling Expenses (if any) £ See Rpt. 1 When received 19

R. D. Sutherland J. Konojima  
Engineer Surveyor to Lloyd's Register of Shipping.

Date TUESDAY 16 OCT 1956  
Committee's Minute See Rpt. 4 C.