

REPORT ON BOILERS.

No. FE-3020

2 NOV 1955

Received at London Office

Date of writing Report 19 When handed in at Local Office OCT. 24. 1955 19 Port of Kobe

No. in Survey held at Tamano, Japan Date, First Survey 22-2-55 Last Survey 22-7-55 19

Reg. Book. on the Steel Single Screw Motor Ship "HODAKASAN MARU" (Number of Visits 13) Tons { Gross 7218.16 Net 4028.36

Built at Tamano, Japan By whom built Mitsui Shipbuilding & Engineering Co., Ltd. Yard No. 593 When built July 1955

Engines made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Engine No. 558 When made July 1955

Boilers made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 385 When made July 1955

Owners Mitsui Sempaku K. K. Port belonging to Tokyo

VERTICAL BOILER.

Made at Tamano By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 385 When made July 1955 Where fixed in funnel

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

Economizer Total Heating Surface of Boiler 112 m<sup>2</sup> Is forced draught fitted No Coal or Oil fired Exhaust gas

No. and Description of Boilers Economizer 1 Vertical tube type Working Pressure 7 kg/cm<sup>2</sup>

Tested by hydraulic pressure to 14 kg/cm<sup>2</sup> Date of test 27 - 5 - 55 No. of Certificate I-23887

Area of fire grate in each Boiler No. and description of safety valves to each boiler 1 Double spring ordinary type

Area of each set of valves per boiler { per Rule 5,217 mm<sup>2</sup> 4250 mm<sup>2</sup> as fitted 3,318 mm<sup>2</sup> Pressure to which they are adjusted 7.15 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 casing top

or woodwork - Is oil fuel carried in the double bottom under boiler - Smallest distance between base of boiler and tank top plating 2,130 mm

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

Shell plates: Material O. H. Steel Tensile strength 47.6 Kg/mm<sup>2</sup> Thickness 12 mm Mitsui Shipbuilding & Engineering Co., Ltd.

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

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 { - Percentage of strength of circ. seams { plate - rivets -

of longitudinal joint { plate - 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 Tensile strength { 44.3 kg/mm<sup>2</sup> 45.1 kg/mm<sup>2</sup> bottom O.H. Steel Thickness { 22 mm 22 mm Mean pitch of stay tubes in nests 352.5 mm

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



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 ..... No. of threads per inch ..... Are the stays drilled at the outer ends .....  
or  
over threads .....  
O. H. Steel ..... 88.9 mm ..... 4 mm  
Tubes: Material ..... External diameter { plain ..... 88.9 mm ..... Thickness { ..... 8 mm  
stay .....  
No. of threads per inch ..... 9 ..... Pitch of tubes ..... 115 x 120 mm  
Manhole Compensation: Size of opening in shell plate ..... 405 x 505 mm ..... Section of compensating ring ..... Flanged type ..... No. of rivets and diameter .....  
of rivet holes ..... Outer row rivet pitch at ends ..... Depth of flange if manhole flanged ..... 60 mm  
Uptake: External diameter ..... 1,000 mm ..... Thickness of uptake plate ..... 6 mm  
Cross Tubes: No. ..... External diameters { ..... Thickness of plates .....  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

MITSUBI SHIPBUILDING & ENGINEERING CO., LTD., YAMATO WORKS.  
The foregoing is a correct description,  
J. Tanaka  
Senior Managing Director.

1955 Feb. 22, 25, Mar. 8, 11, 17, Apr. 1, 8, 12, 26, May 6, 13, 27  
Dates of Survey { During progress of work in shops ---  
while building { During erection on board vessel ---  
Is the approved plan of boiler forwarded herewith (If not state date of approval.) 8-12-54  
Total No. of visits 13

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

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

The exhaust gas economizer of this vessels has been constructed under special survey in accordance with the Rules approved plans and Secretary's letters.

The material and workmanship are sound and good.

The exhaust gas economizer has been examined under steam and safety valves adjusted to 7.15 kg/cm<sup>2</sup> and found satisfactory.

Survey Fee ... £ 30:00:00 } When applied for SEP. 12 1955 19  
Travelling Expenses (if any) £ See Rpt. 1 } When received 19

FRIDAY 25 NOV 1955

Date .....  
Committee's Minute See Rpt. 4 b.

Aburahi J. Konojima  
Engineer Surveyor to Lloyd's Register of Shipping.



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