

## REPORT ON BOILERS.

No. FE-3020Received at London Office E2 NOV 1955

Date of writing Report 19 When handed in at Local Office OCT. 27 1955 19 Port of Kobe

No. in Survey held at Tamano, Japan Date, First Survey 25-2-55 Last Survey 12-7-1955

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 Jul. 1955

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

Boilers made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 384 When made Jul. 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. 384 When made July '54 Boiler room port

Plates:- Yawata Works Yawata Iron & Steel Co., Ltd. Where fixed in eng. room

Manufacturers of Steel Tubes:- Wumitomo Metal Ind. Ltd., Amagasaki Tube Works

Total Heating Surface of 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 10 - 5 - 55 No. of Certificate I - 23886

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 4,070 mm<sup>2</sup>  
as fitted 3318 mm<sup>2</sup> x 2 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

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

800 mm Is the base of the boiler insulated Yes Largest internal dia. of boiler 2,100 mm Height 5,170 mm

Shell plates: Material D. H. Steel Tensile strength 48.0 - 49.8 kg/mm<sup>2</sup> Thickness 12 mm

Are the shell plates welded or flanged Welded If fusion welded, state name of welding firm Mitsui Shipbuilding & Engineering 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 { - Percentage of strength of circ. seams { plate -  
rivets -

of longitudinal joint { plate -  
rivets - Thickness of butt straps { outer -  
combined - inner - Shell Crown: Whether complete hemisphere, dished partial

spherical, or flat Dished partial Spherical Material O. H. Steel Tensile strength 42.6 kg/mm<sup>2</sup> Thickness 16 mm

Radius 1,550 mm Description of Furnace: Plain, spherical, or dished crown Spherical Crown Material O.H. Steel

Tensile strength 44.5 kg/mm<sup>2</sup> Thickness 12 mm External diameter { top -  
bottom 1,800 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 888 mm

Thickness of Ogee Ring 22 mm Diameter as per Rule { D 2,100 mm  
d 1,800 mm

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  
back " Tensile strength { front\* 32 mm  
back \*1 27 mm Thickness { 27 mm Mean pitch of stay tubes in nests 277.5 mm

If comprising shell, dia. as per Rule { front -  
back - Pitch in outer vertical rows { 180 mm Dia. of tube holes FRONT { stay 71 mm  
plain 68 mm BACK { stay 65 mm  
plain 65 mm

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

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 -

\* 42.8 kg/mm<sup>2</sup>\*1 43.0 kg/mm<sup>2</sup>

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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 -  
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 65 mm 35 mm stay 65 mm 8 mm Thickness {  
No. of threads per inch 9 Pitch of tubes 90 x 95 mm  
Manhole Compensation: Size of opening in shell plate 390 x 515 mm Section of compensating ring Flanged Type No. of rivets and diam  
of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 80 mm  
Uptake: External diameter 550 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

The foregoing is a correct description,  
NEERING CO. LTD., YAMANO WORKS.

Senior Managing Director

Dates of Survey while building During progress of work in shops - - 1955 Feb. 25 Mar. 8, 11, 22 Apr. 1, 12, 15, 26 May 4, 6, 10, 13  
During erection on board vessel - - - 1955 July 12  
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 auxiliary boiler of this vessel has been constructed under Special Survey in accordance with the Rule, Approved Plans and Secretary's Letters.

The material and workmanship are sound and good.

The auxiliary boiler has been examined under steam and the safety valves adjusted to 7.15 kgs/cm<sup>2</sup> and found satisfactory.

Survey Fee ... £ 24,000 :  
Travelling Expenses (if any) £ See Rpt. :1  
When applied for SEP. 12. 1955 19  
When received 19

Date FRIDAY 25 NOV 1955

Committee's Minute See Rpt. 4 b.

Engineer Surveyor to Lloyd's Register of Shipping.



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