

19214, AR-1b.  
ver. Yes  
pressure  
ell  
d plate  
mm<sup>2</sup>  
mm<sup>2</sup>  
25 kg  
/mm<sup>2</sup>  
rate fuel tanks  
28-10-53  
1954  
ers  
os

# REPORT ON BOILERS.

No. 2121

Received at London Office 3-JUN1954

of writing Report 19 When handed in at Local Office MAY 27. 1954 19 Port of Kobe  
Survey held at Tamano, Japan Date, First Survey 12th Aug. '53 Last Survey 12th Mar., 1954  
Book. (Number of Visits 16)  
on the Steel Single Screw Motor Ship "HAKONESAN MARU" Tons { Gross 6927.05  
Net 3838.75  
t at Tamano, Japan By whom built Mitsui Shipbuilding & Engineering Co., Ltd. Yard No. 580 When built Mar. 1954  
ines made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Engine No. 505 When made Mar. 1954  
lers made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 369 When made Mar. 1954  
Mitsui Sempaku K.K. Port belonging to Tokyo

## RTICAL BOILER.

Mitsui Shipbuilding & Engineering Co., Ltd. Boiler room port  
de at Tamano By whom made Engineering Co., Ltd. Boiler No. 369 When made Mar. 54 Where fixed in Eng. Room  
Plates: Yawata Steel Iron Works, The Japan Works Ltd., Muroran Works, Fukiai Plant of  
nufacturers of Steel Kawasaki Steel Corp.; Tubes: Sumitomo Metal Ind. Ltd., Amagasaki Tube Works.  
al Heating Surface of Boiler 24.3 m<sup>2</sup> ✓ Is forced draught fitted Yes ✓ Coal or Oil fired Oil ✓  
and Description of Boilers 1; Vertical Cochran type ✓ Working Pressure 7 kg/cm<sup>2</sup> ✓  
ted by hydraulic pressure to 14 kg/cm<sup>2</sup> ✓ Date of test 9th Feb., 1954 No. of Certificate B-18605  
a of fire grate in each Boiler - No. and description of safety valves to each boiler 1; Double spring ordinary type ✓  
ea of each set of valves per boiler { per Rule 6078 mm<sup>2</sup> ✓ 7.1 kg/cm<sup>2</sup> ✓  
as fitted 3318 "x2 Pressure to which they are adjusted Are they fitted with easing gear Yes ✓  
te whether steam from main boilers can enter the donkey boiler No Smallest distance between boiler or uptake and bunkers  
woodwork - Is oil fuel carried in the double bottom under boiler - Smallest distance between base of boiler and tank top plating  
1200 mm. Is the base of the boiler insulated Yes Largest internal dia. of boiler 1576 mm Height 4800 mm ✓  
all plates: Material O. H. steel Tensile strength 46.8-50.0 kg/cm<sup>2</sup> Thickness 12 mm ✓  
e the shell plates welded or flanged Welded If fusion welded, state name of welding firm Mitsui Shipbuilding & Engineering Co., Ltd.  
ve all the requirements of the Rules for Class I vessels been complied with Yes Description of riveting: circ. seams { end -  
inter -  
g. seams - Dia. of rivet holes in { circ. seams - Pitch of rivets { - Percentage of strength of circ. seams { plate -  
long. seams - rivets - Thickness of butt straps { outer - inner - Shell Crown: Whether complete hemisphere, dished partial  
erical, or flat Dished partial spherical Material O.H. steel Tensile strength 46.6 kg/cm<sup>2</sup> Thickness 16 mm ✓  
lius 1400 mm ✓ Description of Furnace: Plain, spherical, or dished crown Spherical crown Material O.H. steel  
sile strength 46.6 kg/cm<sup>2</sup> ✓ Thickness 12 mm ✓ External diameter { top - bottom 1300 mm Length as per Rule -  
ch of support stays circumferentially - and vertically - Are stays fitted with nuts or riveted over -  
meter of stays over thread - Radius of spherical or dished furnace crown 638 mm ✓  
ce with thickness of Ogee Ring 22 mm ✓ Diameter as per Rule { D 1600 mm ✓  
d 1300 mm ✓  
nbustion Chamber: Material - Tensile strength - Thickness of top plate -  
dius if dished - Thickness of back plate - Diameter if circular -  
deck ar length as per Rule - Pitch of stays -  
3, 54 T. e stays fitted with nuts or riveted over - Diameter of stays over thread -  
be Plates: Material { front O.H. steel Tensile strength { Front 47.1 kg/cm<sup>2</sup> ✓ Thickness { 26 mm ✓  
back O.H. steel 47.2 kg/cm<sup>2</sup> ✓ 23 mm ✓ Mean pitch of stay tubes in nests 277.5 mm ✓  
comprising shell, dia. as per Rule { front - Pitch in outer vertical rows { 180 mm ✓ Dia. of tube holes FRONT { stay 71 mm ✓  
back - 180 mm ✓ BACK { stay 65 mm ✓  
each alternate tube in outer vertical rows a stay tube Yes ✓ plain 68 mm ✓ plain 65 mm ✓  
ders to Combustion Chamber Tops: Material - Tensile strength -  
er of Shippi th and thickness of girder at centre - Length as per Rule -  
tance 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 -  
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 ✓  
stay 65 mm ✓ Thickness { 3.5 mm  
8 mm  
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 type Flanged No. of rivets and  
of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 80 mm

Uptake: External diameter 350 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., YAMANO WORKS  
The foregoing is a correct description.  
S. Tanaka  
Senior Managing Director. Manufa

Dates of Survey { During progress of work in shops -- 1953, Dec. 8, 11, 15, 18, 28, 29  
while building { During erection on board vessel --- 1954, Jan. 8, 13, 16, 19, 26, 29, Feb. 1, 9.  
Is the approved plan of boiler forwarded herewith 16-12-53  
(If not state date of approval.)  
Total No. of visits 16

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No. -

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 Rules, 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 7.1 kgs/cm<sup>2</sup> and found satisfactory.

Survey Fee ... £ 24,000 } When applied for MAY 27, 1954 19  
Travelling Expenses (if any) £ See Rpt. } When received 19

Date FRIDAY 9- JUL 1954

Committee's Minute See Rpt. H.C.