

REPORT ON BOILERS.

EXHAUST GAS ECONOMIZER

No. 2121

Received at London Office

3-JUN1954

Writing Report 19 When handed in at Local Office MAY 27 1954 19 Port of Kobe

Survey held at Tamano, Japan Date, First Survey 20th Nov., 1953 Last Survey 19th March, 1954

on the Steel Single Screw Motor Ship "HAKONESAN MARU" (Number of Visits 11) Gross 6927.05 Tons Net 3838.75

at Tamano, Japan By whom built Mitsui Shipbuilding & Engineering Co., Ltd. Yard No. 580 When built Mar. 1954

nes made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Engine No. 505 When made Mar. 1954

rivets and d rs made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 252 When made Mar. 1954

80 mm rs Mitsui Sempaku K.K. Port belonging to Tokyo

VERTICAL BOILER.

at Tamano By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 252 When made Mar. '54 Where fixed in funnel

Manufa Plates: The Japan Works Ltd., Muroran Works, Fukiai Plant of Kawasaki Steel Corp.

ufacturers of Steel Tubes: Sumitomo Metal Ind. Ltd., Amagasaki Tube Works.

al Heating Surface of each Boiler 112 m² Is forced draught fitted No Coal or Oil fired Exhaust gas

and Description of Boilers 1: Vertical tube type Working Pressure 7 kg/cm²

ed by hydraulic pressure to 14 kg/cm² Date of test 26th Feb., 1954 No. of Certificate B-18606

a of fire grate in each Boiler No. and description of safety valves to each boiler 1 set: Spring loaded safety valve

of each set of valves per boiler { per Rule. As approved Pressure to which they are adjusted 7.2 kg/cm² Are they fitted with easing gear No

whether steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers

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

Is the base of the boiler insulated No Largest internal dia. of boiler 2500 mm Height 2000 mm

l plates: Material O.H. steel Tensile strength 48.7 kg/cm² Thickness 12 mm

the shell plates welded or flanged Welded If fusion welded, state name of welding firm Mitsui Shipbuilding & Engineering Co., Ltd.

all the requirements of the Rules for Class I vessels been complied with Yes Description of riveting: circ. seams { end inter

seams Dia. of rivet holes in { circ. seams Pitch of rivets Thickness of butt straps { outer inner

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

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

ile strength Thickness External diameter { top bottom Length as per Rule

h 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

knness of Ogee Ring Diameter as per Rule { D d

ubustion Chamber: Material Tensile strength Thickness of top plate

us if dished Thickness of back plate Diameter if circular

th as per Rule Pitch of stays

stays fitted with nuts or riveted over Diameter of stays over thread

e Plates: Material { top O.H. steel Tensile strength 45.9 kg/cm² Thickness 22 mm Mean pitch of stay tubes in nests 352.5 mm

bottom O.H. steel Tensile strength 45.9 kg/cm² Thickness 22 mm

omprising shell, dia. as per Rule { front Pitch in outer vertical rows Dia. of tube holes { top stay 96 mm bottom stay 88.9 mm

ch alternate tube in outer vertical rows a stay tube plain 93 mm BACK plain 88.9 mm

ers to Combustion Chamber Tops: Material Tensile strength

of Shipping and thickness of girder at centre Length as per Rule

nce 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

Tubes: Material O.H. steel External diameter { plain 88.9 mm ✓ Thickness { 4 mm
stay 88.9 mm ✓ 8 mm

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

of rivet holes Outer row rivet pitch at ends Depth of flange if manhole flanged 60 mm

Uptake: External diameter 1000 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, pressure

S. Tanaka
Senior Managing Director, Manuf

Dates of Survey { During progress of work in shops - - 1953-Nov. 20, 27, Dec. 26, Is the approved plan of boiler forwarded herewith 2-1-54 (KO
while building { During erection on board vessel - - - 1954-Jan. 23, 29, Feb. 9, 16, 19, 26 (If not state date of approval.)

During sea trials: 1954-Mar. 12, 19 Total No. of visits 11

During sea trials: 1954-Mar. 24

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 Exhaust Gas Economizer 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 Exhaust Gas Economizer has been examined under working condition and found satisfactory.

Survey Fee ... £ 30.000 When applied for MAY 27, 1954 19

Travelling Expenses (if any) £ Rpt. 1. When received 19

Date FRIDAY 9- JUL 1954 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute See Rpt. 4 c.