

5b.

EXHAUST GAS ECONOMIZER
REPORT ON BOILERS.

No. 2369

Received at London Office

Date of writing Report 19 When handed in at Local Office NOV. 26 1954 19 Port of K O B E

No. in Survey held at Tamano, Japan Date, First Survey 5-3-54 Last Survey 3rd July, 1954
Reg. Book. (Number of Visits 10)
9018F on the Steel Single Screw Motor Ship "HOEISAN MARU" Tons { Gross 6952.52
Net 3854.60Built at Tamano, Japan By whom built Mitsui Shipbldg. & Engr. Co., Ltd. Yard No. 581 When built July 1954
Engines made at Tamano, Japan By whom made Mitsui Shipbldg. & Engr. Co., Ltd. Engine No. 513 When made July 1954
Exhaust Gas Economizer made at Tamano, Japan By whom made Mitsui Shipbldg. & Engr. Co., Ltd. Boiler No. 256 When made July 1954
Owners Mitsui Steamship Co., Ltd. Port belonging to Tokyo

VERTICAL BOILER. EXHAUST GAS ECONOMIZER.

Made at Tamano By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Boiler No. 256 When made July '54 Where fixed in funnel
Plates: Fukiai Plant of Kawasaki Steel Corporation
Manufacturers of Steel Tubes: Sumitomo Metal Ind. Ltd., Amagasaki Tube WorksTotal Heating Surface of Economizer 112 m² Is forced draught fitted No Coal or Oil fired Exhaust gasNo. and Description of Boilers 1: vertical tube type Working Pressure 7 kg/cm²Tested by hydraulic pressure to 14 kg/cm² Date of test 7th June, 1954 No. of Certificate 1-19633

Area of fire grate in each Economizer No. and description of safety valves to each boiler 1 set; spring loaded safety valve

Area of each set of valves per boiler { per Rule as approved 7.1 kg/cm² Are they fitted with easing gear No
as fitted 50mm dia.

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

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

Shell plates: Material O.H. Steel Tensile strength 47.3 kg/cm² Thickness 12 mm

Are the shell plates welded or flanged Welded If fusion welded, state name of welding firm Mitsui Shipbldg. & Engr. 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 - Pitch of rivets { - Percentage of strength of circ. seams { plate -
long. seams - rivets -of longitudinal joint { plate - Thickness of butt straps { outer - Shell Crown: Whether complete hemisphere, dished partial
rivets - inner -
combined -

spherical, or flat Material Tensile strength Thickness

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

Tensile strength Thickness External diameter { top - Length as per Rule -
bottom -

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 46.1 kg/cm² Thickness { 22 mm Mean pitch of stay tubes in nests 352.5 mm
Bottom " 46.1 " 22 mmIf comprising shell, dia. as per Rule { front - Pitch in outer vertical rows { - Dia. of tube holes TOP { stay 96mm BOTTOM { stay 88.9mm
back - plain 93mm BACK { 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

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 88.9 mm ✓ stay 88.9 mm Thickness { 4 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 diameter 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 ✓

The foregoing is a correct description,

MITSUBISHI SHIPBUILDING & ENGINEERING CO. LTD. YAMANO WORKS Manufacturer

S. Tanaka Senior Manager, Director

Is the approved plan of boiler forwarded herewith 2-1-54 (Kobe) (If not state date of approval.)

Total No. of visits 10

Dates of Survey while building { During progress of work in shops -- 1954 Mar. 5, 13, Apr. 17, 20, May 22, 25, 28, June 4, 7. During erection on board vessel --- 1954 July 3.

Economizer Is this a duplicate of a previous case Yes If so, state Vessel's name and Report No. m.s. "HAKONESAN MARU"

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 ... £ 432 000 } When applied for OCT. 27, 1954 19

Travelling Expenses (if any) £ : : } When received 19

S. Tanaka
M. Kamakura
 Engineer Surveyor to Lloyd's Register of Shipping.

Date TUESDAY 11 JAN 1955

Committee's Minute See Rpt. of L.