

st. 5b.

EXHAUST GAS ECONOMIZER

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. 27. 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 M² Is forced draught fitted No Coal or Oil fired Exhaust gas

No. and Description of Boilers 1 Vertical tube type Working Pressure 7 kg/cm²

Tested by hydraulic pressure to 14 kg/cm² Date of test 27 - 5 - 55 No. of Certificate I-23887

Area of fire grate in each Boiler economizer 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 mm² 4250 mm²
as fitted 3,318 mm² Pressure to which they are adjusted 7.15 kg/cm² 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 casing top 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/mm² 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 - 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/mm²
bottom O.H. Steel { 45.1 kg/mm² Thickness { 22 mm
back O.H. Steel { 45.1 kg/mm² Mean pitch of stay tubes in nests 352.5 mm

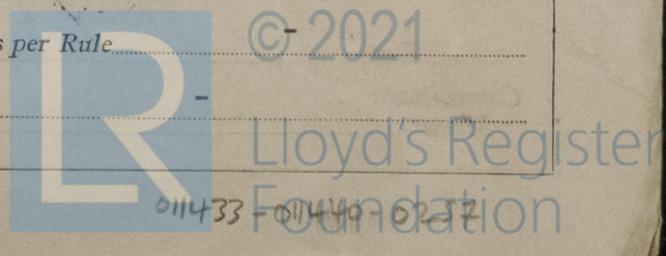
If comprising shell, dia. as per Rule { front - Pitch in outer vertical rows { - Dia. of tube holes TOP { stay 96 mm BOTTOM { stay 88.9 mm
back - { plain 93 mm BACK { plain 88.9 mm

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 -



REPORT ON BOILERS

Crown Stays: Material O. H. Steel 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 6 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 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

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

S. Tanaka Manufacturer
Senior Managing Director.

Dates of Survey while building { During progress of work in shops -- } 1955 Feb. 22, 25, Mar. 8, 11, 17, Apr. 1, 8, 12, 26, May 6, 13, 27

{ During erection on board vessel --- } 1955 July 22

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/cm² 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__

Date FRIDAY 25 NOV 1955

Committee's Minute See Rpt. 4 b.

Shunji J. Nonaka
Engineer Surveyor to Lloyd's Register of Shipping.

