

REPORT ON BOILERS.

Received at London Office

Date of writing Report 1st Oct. 1961 When handed in at Local Office 19 Port of Nagasaki
 Survey held at Nagasaki Date, First Survey 5th July, 1961 Last Survey 18th August, 1961
 No. in Book 1 (Number of Visits 4) Tons 9556.16
 on the m.v. "MANHATTAN MARU" Net 5536.04
 Built at Nagasaki By whom built Mitsubishi Zosen K.K. Yard No. 1561 When built 1961-8
 Engines made at Nagasaki By whom made Mitsubishi Zosen K.K. Engine No. 326 When made 1961-8
 Boilers made at Osaka By whom made Hirano Iron Works Co., Ltd. Boiler No. H-1492 When made 1961-4
 Owners Daido Kaiun K.K. Port belonging to Kobe

VERTICAL BOILER.

Made at Nagasaki By whom made Daido Kaiun K.K. Boiler No. H-1492 When made 1961-4 Where fixed Nagasaki
 Manufacturers of Steel Exhaust Gas Heated Economizer Yes Coal or Oil fired Oil
 Total Heating Surface of each Boiler 83M2 Is forced draught fitted Yes
 No. and Description of Boilers One-Cochran Boiler with Exhaust Gas Heated Economizer Working Pressure 7 kg/cm2
 Tested by hydraulic pressure to 1-60mm dia Duplex improved High Lift Type No. of Certificate Improved
 Area of fire grate in each Boiler 5452mm2 No. and description of safety valves to each boiler High Lift Type
 Area of each set of valves per boiler 5452mm2 Pressure to which they are adjusted Are they fitted with easing gear
 State whether steam from main boilers can enter the donkey boiler No Smallest distance between boiler or uptake and bunkers 450mm.
 Is oil fuel carried in the double bottom under boiler Yes Smallest distance between base of boiler and tank top plating 450mm.
 Is the base of the boiler insulated Yes Largest internal dia. of boiler 450mm. Height 450mm.
 Shell plates: Material 450mm. Tensile strength 450mm. Thickness 450mm.
 Are the shell plates welded or flanged Yes If fusion welded, state name of welding firm Yes
 Have all the requirements of the Rules for Class I vessels been complied with Yes Description of riveting: circ. seams Yes
 Dia. of rivet holes in 5452mm2 Pitch of rivets 5452mm2 Thickness of butt straps 5452mm2
 Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Yes Material 5452mm2 Tensile strength 5452mm2 Thickness 5452mm2
 Description of Furnace: Plain, spherical, or dished crown Yes Material 5452mm2
 Radius 5452mm2 External diameter 5452mm2 Length as per Rule 5452mm2
 Tensile strength 5452mm2 Thickness 5452mm2 Are stays fitted with nuts or riveted over 5452mm2
 Pitch of support stays circumferentially 5452mm2 and vertically 5452mm2
 Radius of spherical or dished furnace crown 5452mm2
 Diameter of stays over thread 5452mm2 Diameter as per Rule 5452mm2
 Thickness of Ogee Ring 5452mm2 Thickness of top plate 5452mm2
 Combustion Chamber: Material 5452mm2 Tensile strength 5452mm2 Thickness of back plate 5452mm2 Diameter if circular 5452mm2
 Radius if dished 5452mm2 Pitch of stays 5452mm2
 Length as per Rule 5452mm2 Diameter of stays over thread 5452mm2
 Are stays fitted with nuts or riveted over 5452mm2
 Tube Plates: Material 5452mm2 Tensile strength 5452mm2 Thickness 5452mm2 Mean pitch of stay tubes in nests 5452mm2
 Pitch in outer vertical rows 5452mm2 Dia. of tube holes FRONT 5452mm2 BACK 5452mm2
 Each alternate tube in outer vertical rows a stay tube 5452mm2 Tensile strength 5452mm2
 Girders to Combustion Chamber Tops: Material 5452mm2 Length as per Rule 5452mm2
 Depth and thickness of girder at centre 5452mm2 No. and pitch of stays in each 5452mm2
 Distance apart 5452mm2



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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 - External diameter { plain -
stay. - Thickness { -

No. of threads per inch - Pitch of tubes -

Manhole Compensation: Size of opening in shell plate - Section of compensating ring - No. of rivets and diameter of rivet holes -

Outer row rivet pitch at ends - Depth of flange if manhole flanged -

Uptake: External diameter - Thickness of uptake plate -

Cross Tubes: No. - External diameters { -
Thickness of plates -

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with -

The foregoing is a correct description,

K. Kito
NAGASAKI WORKS

MITSUBISHI SHIPBUILDING & ENGINEERING CO., LTD. Manufactured at -

Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - - - } 1961 July 5, 31, Aug. 10, 18 Is the approved plan of boiler forwarded herewith (If not state date of approval.)
Total No. of visits 4

Is this Boiler a duplicate of a previous case - If so, state Vessel's name and Report No. m.v. "BROOKLYN MARU" FE-1069 Nag.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Donkey Boiler with exhaust gas heated economizer of this ship has been installed under the supervision of the Surveyors in accordance with the requirement of the Rules, Approved plans and Secretary's letters.

The donkey boiler with exhaust gas heated economizer was examined under steam, safety valves on the donkey boiler adjusted to 7.2 kgs per sq. cm., accumulation test carried out and found satisfactory.

The safety valves of the exhaust gas heated economizer adjusted to 11 kg/cm².

For the reports on survey of the donkey boiler & economizer during construction in the manufacturer's shop, see Kobe Surveyor's Report No. FE.8937 and Cert. No. M-1-69707 and Nag. M-9372 for economizer.

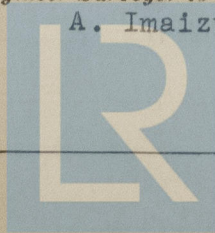
Survey Fee ... £22,500 : When applied for 22nd Sept., 1961

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

Date FRIDAY -5 JAN 1962

Committee's Minute See Rpt 1

a. Imaizumi
Engineer Surveyor to Lloyd's Register of Shipping.
A. Imaizumi



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