

REPORT ON BOILERS.

No. 1972
10 JUL 1934

Received at London Office

Date of writing Report 9th June 1934 When handed in at Local Office 9th June 1934 Port of NAGASAKI.

m/m
No. in 1 Survey held at NAGASAKI. Date, First Survey 2nd August 1933 Last Survey 4th June 1934
Kg. Book See Machy. Rpt. Gross 7508.88

9771 on the Steel Single Screw Motor Vessel "GETSUO MARU" Tons Net 5521.44

built at Nagasaki By whom built Mitsubishi Jukogyo Kaisha. Yard No. 552 When built 1934
engines made at Nagasaki By whom made Mitsubishi Jukogyo Kaisha. Engine No. 552 When made 1934
boilers made at Nagasaki By whom made Mitsubishi Jukogyo Kaisha. Boiler No. 552 When made 1934
owners Toyo Kisen Kabushiki Kaisha. Port belonging to Tokyo.

VERTICAL DONKEY BOILER.

made at Nagasaki By whom made Mitsubishi Jukogyo K. Boiler No. 552 When made 1934 Where fixed Port side. Eng. Rm. floor.
Manufacturers of Steel Kawasaki Dockyard Co. Ltd., Fukuoka.

Total Heating Surface of Boiler 25.63 sq. meters. Is forced draught fitted No Coal or Oil fired Oil

No. and Description of Boilers One Vertical Multitubular. Working pressure 120 lbs

tested by hydraulic pressure to 230 lbs/sq.in. Date of test 3rd February 1934. No. of Certificate No. 157.

Area of Firegrate in each Boiler / No. and Description of safety valves to each boiler Twin spring loaded.

Area of each set of valves per boiler { per rule 3.53 sq.in. Pressure to which they are adjusted 122 lbs/sq.in. Are they fitted with easing gear Yes
as fitted 3.90 sq.in.

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

woodwork 3'-5 1/2" Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating

3'-5" Is the base of the boiler insulated Yes Largest internal dia. of boiler 1600 m/m Height 4115 m/m

Shell plates: Material Steel Tensile strength 28-32 tons/sq.in. Thickness 12 and 15 m/m

Are the shell plates welded or flanged No Description of riveting: circ. seams { end S.R.L. long. seams D.R.L.
inter.

Dia. of rivet holes in { circ. seams 23 m/m Pitch of rivets { 50.5 m/m 60.1 m/m Max. 66.2 m/m Percentage of strength of circ. seams { plate 58.6 of Longitudinal joint { plate 65.3
long. seams " " rivets 47.1 rivets 62.1
combined -

Working pressure of shell by rules 131 lbs/sq.in. Thickness of butt straps { outer / inner /

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished partial spherical Material Steel

Tensile strength 26-30 tons/sq.in Thickness 15 m/m Radius 1000 m/m Working pressure by rules 138 lbs/sq.in.

Description of Furnace: Plain, spherical, or dished crown Spherical Material Steel Tensile strength 26-30 tons/sq.in

Thickness 12 m/m External diameter { top / bottom / Length as per rule / Working pressure by rules /

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 690 m/m Working pressure by rule 156 lbs

Thickness of Ogee Ring 19 m/m Diameter as per rule { 1600 m/m Working pressure by rule 135 lbs/sq.in
a. 1380 m/m

Combustion Chamber: Material / Tensile strength / Thickness of top plate /

Radius if dished / Working pressure by rule / 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 / Working pressure of back plate by rules /

Tube Plates: Material { front Steel. Tensile strength { 26-30 tons Thickness { 20 m/m Mean pitch of stay tubes in nests 220.4 m/m
back

If comprising shell, Dia. as per rule { front 1288 m/m Pitch in outer vertical rows { 99 m/m Dia. of tube holes FRONT { stay 70 m/m BACK { stay 65 m/m
back 1448 m/m 99 m/m plate 67 m/m plate 65 m/m

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 126 lbs/sq.in back 129 lbs/sq.in

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 / Working pressure by rule /

Crown stays: Material / Tensile strength / Diameter { at body of stay, / or / over threads, /
No. of threads per inch / Area supported by each stay / Working pressure by rules /
Screw stays: Material / Tensile strength / Diameter { at turned off part, / or / over threads, / No. of threads per inch /
Area supported by each stay / Working pressure by rules / Are the stays drilled at the outer ends /
Tubes: Material **Mild steel** External diameter { plain **65 m/m** / stay **65 m/m** / Thickness { **10 L.S.G.** / **8 m/m** /
No. of threads per inch **9** Pitch of tubes **93 x 99 m/m** Working pressure by rules **175 lbs/sq.in.**

Manhole Compensation: Size of opening in ~~top~~ ^{top and} plate **305 x 405 m/m** Section of compensating ring / No. of rivets and diam
of rivet holes / Outer row rivet pitch at ends / Depth of flange if manhole flanged **90 m/m**

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 **Yes**

The foregoing is a correct description.
NAGASAKI WORKS, MITSUBISHI, TOKYO KABUSHIKI KAISHA.
[Signature]
GENERAL MANAGER. Manufacturer

Dates of Survey { During progress of work in shops - **See Machinery Report.** / Is the approved plan of boiler forwarded herewith **8-4-33** /
while building { During erection on board vessel - - - / (If not state date of approval.)
Total No. of visits

Is this Boiler a duplicate of a previous case **Yes** If so, state Vessel's name and Report No. **"Nichiyo Maru" Nag.Rpt.No.19**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under Special survey in accordance with the Rules and Approved plan
The materials have been tested found efficient and the workmanship is good.
The safety valves were adjusted under steam as stated on the 11th May 1934.
This boiler has been efficiently installed on board, accumulation test carried out with satisfactory results and is eligible in our opinion to have the notation of **DBS. 6-34 in the Register Bo**
Fitted for oil fuel F.P. above 150° F.

Survey Fee ... £ : : When applied for, 19
Travelling Expenses (if any) £ : : **See Machinery Report.** When received, 19

[Signature] + *[Signature]*
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute **FRI. 13 JUL 1934**
Assigned *See other report*
Nag. F.E. 1972