

REPORT ON BOILERS.

No. 1916

Received at London Office 9 NOV 1933

Writing Report 20th Oct 1933 When handed in at Local Office 20th Oct 1933 Port of NAGASAKI.

Survey held at NAGASAKI. Date, First Survey 5th April 1933 Last Survey 3rd October 1933
 on the Steel Single Screw Motor Vessel "U Y O M A R U" See Machy. Rept. 7503.31
 Tons Gross 7503.31 Net 5498.36

Nagasaki. By whom built Mitsubishi Zosen Kaisha, Ltd., Yard No. 532 When built 1933-10
 made at Nagasaki. By whom made Mitsubishi Zosen Kaisha, Ltd. Engine No. 532 When made 1933-10
 made at Nagasaki. By whom made Mitsubishi Zosen Kaisha, Ltd. Boiler No. 532 When made 1933-10
 Toyo Kisen Kabushiki Kaisha. Port belonging to Tokio.

VERTICAL DONKEY BOILER.

at Nagasaki By whom made Mitsubishi Zosen Kaisha Boiler No. 532 When made 1933 Port side Eng. Rm. floor.
 makers of Steel Kawasaki Dockyard Co., Ltd.,

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

Description of Boilers One Vertical Multitubular. Working pressure 120 lbs/sq. in.

by hydraulic pressure to 230 lbs/sq. in. Date of test 19th June 1933. No. of Certificate 150.

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

of each set of valves per boiler } per rule 3.53 sq. in. } Pressure to which they are adjusted 125 lbs/sq. in. Are they fitted with easing gear Yes
 as fitted 3.90 sq. in.

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

Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated Yes Largest internal dia. of boiler 1600 m/m Height 4115 m/m

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

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

of rivet holes in } circ. seams 23 m/m } Pitch of rivets 55.5 m/m } Percentage of strength of circ. seams } plate 58.6 } of Longitudinal joint } plate 65.3 }
 } long. seams 23 m/m } 60.1 m/m Max. } rivets 47.1 } rivets 62.1 }
 } 66.2 m/m } 73.0 m/m Max. } combined. - }

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

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

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

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

ness 13 m/m External diameter } top / } Length as per rule / Working pressure by rules /
 bottom /

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 690 m/m Working pressure by rule 156 lbs

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

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

us if dished / Working pressure by rule / Thickness of back plate / Diameter if circular /

th as per rule / Pitch of stays / Are stays fitted with nuts or riveted over /

meter of stays over thread / Working pressure of back plate by rules /

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 Steel } sq. in.

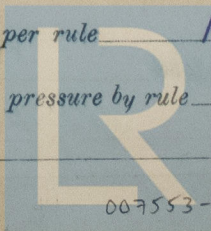
mprising shell, Dia. as per rule } front 1288 m/m } 99 m/m } Dia. of tube holes FRONT } stay 70 m/m } stay 65 m/m }
 back 1448 m/m } 99 m/m } BACK } plain 67 m/m } plain 65 m/m }

ach alternate tube in outer vertical rows a stay tube Yes Working pressure by rules } front 120 lbs/sq. in. }
 back 129 lbs/sq. in.

ers to combustion chamber tops: Material / Tensile strength /

h and thickness of girder at centre / Length as per rule /

ance apart / No. and pitch of stays in each / Working pressure by rule /



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4c.

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. / 8 m/m

No. of threads per inch 9 Pitch of tubes 93 m/m x 99 m/m Working pressure by rules 175 lbs/sq.in.

Manhole Compensation: Size of opening in ~~size~~ top end plate 305 x 405 m/m Section of compensating ring / No. of rivets and 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 ZOSEN KAISHA, LTD.

T. Kanish
GENERAL MANAGER.

Dates of Survey { During progress of work in shops - - - / while building { During erection on board vessel - - - /

See Machinery Report.

Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes

Total No. of visits

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.)

This boiler has been constructed under Special survey in accordance with the Rules and Approved
The materials have been tested found efficient and the workmanship is good.
The safety valves were adjusted under steam as stated above on the 9th September 1933.
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. 10-33 in the Register
Fitted for oil fuel F.P. above 150° F.

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

See Machinery Report.

H. Buchanan *T. Kanish*
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 17 NOV 1933

Assigned

*See minute on
Machinery 22.*



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