

# REPORT ON BOILERS.

No. 1240.

Received at London Office

THU. 27 AUG. 1919

Date of writing Report 7<sup>th</sup> July 1919 When handed in at Local Office 7<sup>th</sup> July 1919 Port of NAGASAKI

No. in Survey held at NAGASAKI. Date, First Survey 26<sup>th</sup> March. Last Survey 24<sup>th</sup> June 1919

Reg. Book. on the s.s. "Genoa Maru" ex "Suwazan Maru" (Number of Visits 14) Gross 6791 Tons Net 5001

Master K. Ogura Built at Nagasaki By whom built Mitsubishi Zosen Kaisha When built 1919

Engines made at Nagasaki By whom made Mitsubishi Zosen Kaisha When made 1919.

Boilers made at Nagasaki By whom made Mitsubishi Zosen Kaisha When made 1919

Nominal Registered Horse Power 578 Owners Nippon Yusen Kaisha Port belonging to Tokio

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Midvale Steel Co. Illinois Steel Co.

(Letter for record S) Total Heating Surface of Boilers 1799.79 sq. ft. Is forced draft fitted Yes. No. and Description of Boilers 1 Cylindrical, Single ended Working Pressure 200 lb. Tested by hydraulic pressure to 400 lb. Date of test 30<sup>th</sup> May 1919.

No. of Certificate 91 Can each boiler be worked separately Yes. Area of fire grate in each boiler 43.6 sq. ft. No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 5.93 sq. ins. Pressure to which they are adjusted 205 lb.

Are they fitted with easing gear Yes. In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Smallest distance between boilers or uptakes and bunkers or woodwork 12' 0" Mean dia. of boilers 13' 0" Length 11' 6"

Material of shell plates Steel Thickness 1 1/2" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Double lap long. seams 2 straps Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 9 1/2" x 2 1/2"

Lap of plates or width of butt straps 2 1/2" Per centages of strength of longitudinal joint 84.8 Working pressure of shell by rules 257 lb. Size of manhole in shell 16" x 12" Size of compensating ring 36 1/2" x 32 1/2" x 1 1/2"

No. and Description of Furnaces in each boiler 2 Morrison's Suspension Material Steel Outside diameter 4' 1 1/2" Length of plain part 5' Thickness of plates 5" crown 8" bottom

Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 202 lb. Combustion chamber plates: Material Steel Thickness: Sides 11/16" Back 3/32" Top 21/32" Bottom 1" Pitch of stays to ditto: Sides 8 3/4" x 8" Back 9" x 8 1/2"

Top 9 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 208 lb. Material of stays Steel Area at smallest part 2.02 sq. in. Area supported by each stay 76.5 sq. in. Working pressure by rules 237 lb. End plates in steam space: Material Steel Thickness 1 1/2"

Pitch of stays 18" x 19" How are stays secured Double nuts washers Working pressure by rules 216 lb. Material of stays Steel Area at smallest part 7.669 sq. in.

Area supported by each stay 342 sq. in. Working pressure by rules 233 lb. Material of Front plates at bottom Steel Thickness 5/8" Material of Lower back plate Steel Thickness 31/32" Greatest pitch of stays 12 1/2" Working pressure of plate by rules 207 lb. Diameter of tubes 3"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 7/8" Back 7/8" Mean pitch of stays 8 3/8" Pitch across wide water spaces 13 1/2" Working pressures by rules 243 lb. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 1/2" x 7/8" double Length as per rule 32.4" Distance apart 9 1/2" Number and pitch of Stays in each 3 @ 7 1/4"

Working pressure by rules 265 lb. Steam dome: description of joint to shell ✓ % of strength of joint ✓

Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓

Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓

**SUPERHEATER.** Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓

Date of Test ✓ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓

Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

The foregoing is a correct description,  
NAGASAKI WORKS, MITSUBISHI ZOSSEN KAISHA, LTD  
*[Signature]* Manufacturer.

Dates of Survey } During progress of work in shops - - } 1919 March. 26. April 12. 16. 22. 29. May Is the approved plan of boiler forwarded herewith Yes  
while building } During erection on board vessel - - - } 29. 10. 16. 29. 30. June. 7. 14. 24 Total No. of visits 14.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This main Boiler has been constructed under special survey, in accordance with the Rules, and of good materials and workmanship.

Survey Fee included in fees for the Special Survey of Machinery When applied for, 191  
Travelling Expenses (if any) £ ✓ When received, 191

Committee's Minute FRI. 5-SEP. 1919 *[Signature]* Engineer Surveyor to Lloyd's Register of Shipping.

Assigned see minute on Nag. Rpt 1240 attached



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