

REPORT ON BOILERS.

No. 1845

Received at London Office 27 SEP 1932

Date of writing Report 25th Aug 1932 When handed in at Local Office 25th Aug 1932 Port of NAGASAKI.

No. in Survey held at NAGASAKI. Date, First Survey 24th Feb. 1932 Last Survey 6th August 1932.

68128 on the Steel Screw Steamer "NAGOYA MARU". (Number of Visits) See Machy. Report Gross 6049.31 Tons Net 3729.01

Built at Nagasaki. By whom built Mitsubishi Zosen Kaisha, Ltd. Yard No. 503 When built 1932

Engines made at Nagasaki (Exhaust turbine & gearing, Kobe). By whom made Mitsubishi Zosen Kaisha, Ltd. Engine No. 503 When made 1932

Boilers made at Nagasaki. By whom made Mitsubishi Zosen Kaisha, Ltd. Boiler No. 503 When made 1932

Owners Ishihara Gomei Kaisha. Port belonging to Fuchu.

VERTICAL DONKEY BOILER.

Made at Nagasaki By whom made Mitsubishi Zosen Kaisha Boiler No. 503 When made 1932 Where fixed Nagasaki.

Manufacturers of Steel The Imperial Steel Works, Yawata. Japan.

Total Heating Surface of Boiler 510 sq.ft. Is forced draught fitted No Coal or Oil fired Coal.

No. and Description of Boilers One- Vertical. Working pressure 100 lbs/sq.in.

Tested by hydraulic pressure to 200 lbs/sq.in. Date of test 6-5-32. No. of Certificate 148.

Area of Firegrate in each Boiler 22.5 sq.ft. No. and Description of safety valves to each boiler Two- direct spring loaded.

Area of each set of valves per boiler per rule 5.54 sq.in. as fitted 6.28 " Pressure to which they are adjusted 104 lbs Are they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler No Smallest distance between boiler or uptake and bunkers or woodwork 14 1/2"

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

Is the base of the boiler insulated Yes Largest internal dia. of boiler 6'-6" Height 15'-0"

Shell plates: Material Steel Tensile strength 28-35 tons/sq.in. Thickness 1/2" & 5/8"

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

Dia. of rivet holes in circ. seams 7/8" Pitch of rivets 1.696 2.229 2.625 2.723 Percentage of strength of circ. seams plate 48.4 rivets 44.8 of Longitudinal joint plate 66.7 rivets 72.5 combined

Working pressure of shell by rules 115.6 lbs/sq.in. Thickness of butt straps outer inner

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

Tensile strength 26-30 tons sq.in. Thickness 7/16" & 7/8" Radius 39" Working pressure by rules 141.5 lbs/sq.in.

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

Thickness 1/2" 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 34" Working pressure by rule 121.3 lbs/sq.in.

Thickness of Ogee Ring 7/8" Diameter as per rule D 78" d 68" Working pressure by rule 130.8 lbs/sq.in.

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 back " Tensile strength 26-30 T/sq.in. Thickness 7/8" 3/4" Mean pitch of stay tubes in nests 11.911"

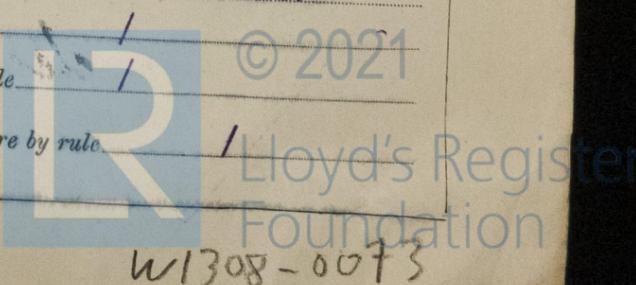
If comprising shell, Dia. as per rule front 71.8" back 65.05" Pitch in outer vertical rows 8" Dia. of tube holes FRONT stay 2 11/16" plain 2 9/16" BACK stay 2 1/2" plain "

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules front 111.6 lbs/sq.in. back 113.7 "

Girders to combustion chamber tops: Material Tensile strength Length as per rule Working pressure by rule

Depth and thickness of girder at centre No. and pitch of stays in each

Distance apart 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 2 1/2" / stay " / Thickness { No. 11 L.S.G. / 5/16" /
 No. of threads per inch 9 Pitch of tubes 4 1/2" x 4" (Centre) Working pressure by rules 125 lbs/sq/in.
Manhole Compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 2" x 6" x 7/8" No. of rivets and diameter
 of rivet holes 32 @ 7/8" dia. Outer row rivet pitch at ends 4.75" Depth of flange if manhole flanged /
Uptake: External diameter 16" x 24" Thickness of uptake plate 1/2"
Cross Tubes: No. / External diameters { / Thickness of plates /
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,
 MASAKI WORKS, MITSUBISHI KAISHA, LTD.
S. Furutera Manufacturer.
 GENERAL MANAGER.

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The materials and workmanship are good.
The boiler has been constructed under Special Survey in accordance with the Rules and Approved plan, satisfactorily fitted in the vessel and safety valves adjusted under steam as above.

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

George Anderson & T. Kumishiro
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 4 OCT 1937
 Assigned See other Rpt. Vol. 1845

