

REPORT ON BOILERS.

No. 1789

Received at London Office 13 JUL 1931

Date of writing Report 15th June 31 When handed in at Local Office 15th June 31 Port of NAGASAKI.

No. in Survey held at NAGASAKI. Date, First Survey 25th Feb. 1931 Last Survey 30th May 1931.
 Reg. Book See Machy. report. 3280.09
 91193 on the Steel Screw Motor Ship "KANAN MARU". (Number of Visits) Gross 3280.09
 in Sup. Tons Net 1876.74

Built at Nagasaki. By whom built Mitsubishi Zosen Kaisha, Ltd. Yard No. 490. When built 1931.
 Engines made at Ludwigshafen/Rhein. By whom made Gebruder Sulzer A.G. Cylinder No. 6125-8. When made 1931.
 Boilers made at Nagasaki. By whom made Mitsubishi Zosen Kaisha, Ltd. Boiler No. 490 When made 1931
 Owners Dairen Kisen Kabushiki Kaisha. Port belonging to Dairen.

VERTICAL DONKEY BOILER.

Made at Nagasaki By whom made Mitsubishi Zosen Kaisha Boiler No. 490. When made 1931 Where fixed In Engine Room.
 Manufacturers of Steel Kawasaki Dkyd Co, Ltd. Fukiai Plate & Sheet Mills, Kobe.

Total Heating Surface of Boiler 128.3 sq. feet. Is forced draught fitted No Coal or Oil fired Oil

No. and Description of Boilers One vertical. Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test 10th March 1931. No. of Certificate 142.

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

Area of each set of valves per boiler { per rule 3.53 sq. in. as fitted 7.79 " 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 / Smallest distance between boiler or uptake and bunkers

or woodwork / 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 No Largest internal dia. of boiler 1210 m/m Height 3000 m/m

Shell plates: Material Steel Tensile strength 28-35 tons/sq. in. Thickness 10 m/m and 13 m/m.

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

Dia. of rivet holes in { circ. seams 20 m/m Pitch of rivets { 55.4 m/m Percentage of strength of circ. seams { plate 63.9 rivets 46.6 of Longitudinal joint { plate 68.8 rivets 80.5 combined

Working pressure of shell by rules 147.5 lbs per 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 1200 m/m Working pressure by rules 147.9 lbs/sq. in.

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

Thickness 13 m/m External diameter { top / bottom / Length as per rule / Working pressure by rules 212.8 lbs/sq. in.

Pitch of support stays circumferentially / and vertically / Are stays fitted with nuts or riveted over /

Diameter of stays over thread / Radius of spherical or ~~convex~~ crown 492 m/m Working pressure by rule /

Thickness of Ogee Ring 16 m/m Diameter as per rule { D 1210 m/m a 1010 m/m Working pressure by rule 136.8 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 tons sq. in. Thickness { 17 m/m Mean pitch of stay tubes in nests 197 m/m

If comprising shell, Dia. as per rule { front 1075.6 m/m Pitch in outer vertical rows { 160 m/m Dia. of tube holes FRONT { stay 58 m/m plain 52 m/m BACK { stay 50.8 m/m plain " combined

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 144 lbs/sq. in. back 182 " combined

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 /

© 2020

Lloyd's Register
Foundation

W 1278-0149

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 50.8 m/m / stay " / Thickness { 10 L.S.G. / 8 m/m /
No. of threads per inch 9 Pitch of tubes 78 x 80 m/m Working pressure by rules 215 lbs/sq.in.
Manhole Compensation: Size of opening in shell plate 305 x 405 m/m Section of compensating ring / No. of rivets and diameter /
of rivet holes / Outer row rivet pitch at ends / Depth of flange if manhole flanged 90 m/m
Uptake: External diameter 276 x 426 m/m Thickness of uptake plate 13 m/m
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,
NAGASAKI WORKS, MITSUBISHI ZOSEN KAISHA, LTD.

N. Hirota 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 ... See Machy. Rpt. When applied for, 19
Travelling Expenses (if any) £ : : When received, 19

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

Committee's Minute FRI. 17 JUL 1931
Assigned See F.H. Rpt.