

REPORT ON BOILERS.

No. 1999

26 NOV 1934

Received at London Office

Date of writing Report 5th Nov. 1934 When handed in at Local Office 5th Nov. 1934 Port of NAGASAKI.

No. in Reg. Book 82167 on the Steel Screw Motor Vessel "N O T O M A R U" Date, First Survey 20th March 1934 Last Survey 14th Oct. 1934
 See Machy. Rpt. (Number of Visits) Gross 7184.51 Tons Net 4317.76

Built at Nagasaki By whom built Mitsubishi Jukogyo Kaisha, Ltd. Yard No. 580 When built 1934
 Engines made at Nagasaki By whom made Mitsubishi Jukogyo Kaisha, Ltd. Engine No. 580 When made 1934
 Boilers made at Nagasaki By whom made Mitsubishi Jukogyo Kaisha, Ltd. Boiler No. 580 When made 1934
 Owners Nippon Yusen Kabushiki Kaisha. Port belonging to Tokio.

VERTICAL DONKEY BOILER.

Made at Nagasaki By whom made Mitsubishi Jukogyo K. Boiler No. 580 When made 1934 Where fixed E.R. Upper.

Manufacturers of Steel Nippon Seitetsu Kaisha, Yawata.

Total Heating Surface of Boiler 58,310 sq. M. Is forced draught fitted No Coal or Oil fired Exhaust gas or Oil.

No. and Description of Boilers One, Vertical Waste Heat Boiler. (Clarkson Type). Working pressure 7 Kg/cm²

Tested by hydraulic pressure to 14 Kg/cm² Date of test 18-7-1934 No. of Certificate 158

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

Area of each set of valves per boiler 2268 sq. m/m. Pressure to which they are adjusted 7 Kg/cm² 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

Is oil fuel carried in the double bottom under boiler / Smallest distance between base of boiler and tank top plating

Boiler flat near / Is the base of the boiler insulated Yes Largest internal dia. of boiler 2250 m/m Height 6110 m/m

Shell plates: Material Steel Tensile strength 44 to 50 Kg/cm² Thickness 12 m/m

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

Dia. of rivet holes in circ. seams 20 m/m Pitch of rivets 46.5 m/m Percentage of strength of circ. seams 56.5% of Longitudinal joint 75%
 long. seams 20 " 80 m/m rivets 46% rivets 100% combined -

Working pressure of shell by rules 7.94 Kg/cm² Thickness of butt straps outer 8 m/m inner 11 m/m

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

Tensile strength 41 to 47 Kg/cm² Thickness 21 m/m Radius 1900 m/m Working pressure by rules 7.9 Kg/cm²

Description of Furnace: Plain, spherical, or dished crown / Material / Tensile strength /

Thickness / 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 / Working pressure by rule /

Thickness of Ogee Ring / Diameter as per rule D / Working pressure by rule /

Uptake Ogee Ring Material Steel Tensile strength 41 to 47 Kg/cm² Thickness of top plate 16 m/m

Radius if dished 1041 m/m Working pressure by rule 9.1 Kgs 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 Steel Tensile strength 41 to 47 Kg/cm² Thickness 30 m/m Thimble pitch of tubes 177.9 x 191 m/m

comprising shell, Dia. as per rule front / back / Pitch in outer vertical rows / (thimble) Dia. of tube holes 83.4 m/m BACK /

each alternate tube in outer vertical rows a stay tube / Working pressure by rules 9.5 Kg/cm²

Stays to combustion chamber tops: Material / Tensile strength /

Length 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, / 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, / 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 M.S. tube tapered & O.A. welded at end External diameter 83 m/m Thickness No. 6 B.W.G.
No. of threads per inch / Pitch of tubes / Working pressure by rules 27.5 Kg/cm²
Manhole Compensation: Size of opening in shell plate 455x355m/m Section of compensating ring Flanged 16m/m Thk. No. of rivets and diameter 80 m/m
of rivet holes 44 x 23 m/m Outer row rivet pitch at ends 100 m/m Depth of flange 80 m/m
Uptake: External diameter 1032 m/m Thickness of uptake plate 16 m/m
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 JUKOGYO KABUSHIKI KAISHA.

T. Kurihara
GENERAL MANAGER.

Manufactured

App. date.

Is the approved plan of boiler forwarded herewith (If not state date of approval.) 20-11-33

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

See Machinery Report.

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 plans. The materials have been tested found efficient and the workmanship throughout is good. The safety valves were adjusted under steam, as stated, on the 29th September 1934. This boiler has been efficiently installed on board, accumulation test carried out with satisfactory results and eligible in our opinion to have the notation of DBS. 10-34 in the Register Book. Fitted for oil fuel F.P. above 150° F.

Note:- A pressure feed water heater, has been installed, built in accordance with plan approved 15 and tested by hydraulic pressure of 17 kg/cm² and found satisfactory. This heater employs exhaust gases from the Diesel generator engines only, and it has a relief valve fitted and adjusted to safe working load.

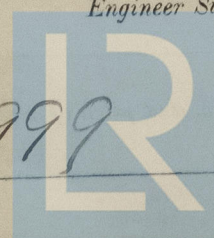
Survey Fee ... £
Travelling Expenses (if any) £

When applied for, 19
When received, 19
See Machinery Report.

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

Committee's Minute
Assigned

18 DEC 1934
See other Rpt. - Ref. J.E. 1999



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