

REPORT ON BOILERS.

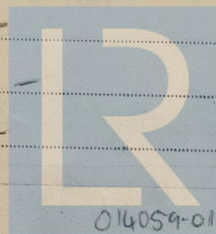
No. 628

Received at London Office 15 APR 1952

Date of writing Report 19... When handed in at Local Office 19... Port of Kobe
 Date, First Survey 25th June, 1951 Last Survey 10th Nov 1951
 Survey held at Nagasaki
 on the Steel Twin Screw Motor Vessel "ASO MARY"
 (Number of Visits 24)
 Gross 7,576.88 Tons
 Net 4,312.51 Tons
 It at Nagasaki By whom built Nagasaki Shipyard & Engine Works, West Japan Heavy Industries Ltd.
 Yard No. 1421 When built 1951/11mo
 Engines made at Nagasaki By whom made Nagasaki Shipyard & Engine Works
 Engine No. 234 When made 1951/11mo
 Boilers made at Nagasaki By whom made Nagasaki Shipyard & Engine Works
 Boiler No. 1358 When made 1951/11mo
 Nominal Horse Power 1678 (Total) Owners Nippon Yusen K. K. Port belonging to Tokyo

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Yawata Iron & Steel Works Ltd. (Letter for Record)
 Total Heating Surface of Boilers 268.5 m² Of Superheaters -
 Total for Register Book 268.5 cubic meter Is forced draught fitted Yes
 and Description of Boilers one cylindrical multitubular boiler of one furnace Working Pressure 7 kg/cm²
 Tested by hydraulic pressure to 14 kg/cm² Date of test 23-8-1951 No. of Certificate B 235 Can each boiler be worked separately.
 Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2-60 mm bore Full lift type
 Area of each set of valves per boiler { per Rule 51.2 cm² as fitted 56.5 cm² Pressure to which they are adjusted 7 kg/cm² 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 1,000 mm Is oil fuel carried in the double bottom under boilers Yes
 Smallest distance between shell of boiler and tank top plating 5,850 mm Is the bottom of the boiler insulated Yes
 Smallest internal dia. of boilers 3,800 mm Length 2,650 mm Shell plates: Material Boiler quality steel Tensile strength 46-54 kg/mm²
 Fusion welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels
 complied with Thickness Are the shell plates welded or flanged Description of riveting: circ. seams end Double riveted lap joint inter.
 Seams Double riveted double butt strap Diameter of rivet holes in { circ. seams 26.5 mm long. seams 26.5 mm Pitch of rivets { 88.2 mm 102 mm
 Percentage of strength of circ. end seams { plate 69.9 rivets 53.8 Percentage of strength of circ. intermediate seam { plate 74 rivets 87.7 combined
 Percentage of strength of longitudinal joint { plate 74 rivets 87.7 combined
 Thickness of butt straps { outer 13 mm inner 16 mm No. and Description of Furnaces in each Boiler one Morrison's corrugated
 Material Boiler quality steel Tensile strength 42-49 kg/mm² Smallest outside diameter 874 mm
 Thickness of plain part { top Thickness of plates 12 mm Description of longitudinal joint Butt welding from both sides
 Dimensions of stiffening rings on furnace or c.c. bottom
 Plates in steam space: Material Boiler quality steel Tensile strength 42-49 kg/mm² Thickness 22 mm Pitch of stays 400 mm
 Are stays secured with nuts at inside and outside of end plate
 Plates: Material { front Boiler quality steel back Boiler quality steel Tensile strength { 42-49 kg/mm² 42-49 kg/mm² Thickness { 22 mm 22 mm
 Pitch of stay tubes in nests 318 mm Pitch across wide water spaces 230 mm
 Stays to combustion chamber tops: Material Tensile strength Depth and thickness of girder
 Length as per Rule Distance apart No. and pitch of stays
 Combustion chamber plates: Material
 Thickness: Sides Back Top Bottom
 Are stays fitted with nuts or riveted over
 Plate at bottom: Material Boiler quality steel Tensile strength 42-49 kg/mm²
 Lower back plate: Material Boiler quality steel Tensile strength 42-49 kg/mm² Thickness 22 mm
 Are stays at wide water space
 Are stays fitted with nuts or riveted over
 Stays: Material Boiler longitudinal stay Tensile strength 45-55 kg/mm²
 At body of stay 6.5 mm No. of threads per inch 6
 Over threads
 Stays: Material Tensile strength
 At turned off part
 Over threads No. of threads per inch



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Are the stays drilled at the outer ends..... Margin stays: Diameter { At turned off part.....
or
Over threads.....

No. of threads per inch.....

Tubes: Material Boiler tube External diameter { Plain 76.2 mm ✓
Stay 76.2 mm ✓ Thickness { 4 mm ✓
8 mm ✓ No. of threads per inch 9

Pitch of tubes..... 105 mm Manhole compensation: Size of opening.....

shell plate 405 x 305 Section of compensating ring Flanged ✓ No. of rivets and diameter of rivet holes 36 x 26.5 mm

Outer row rivet pitch at ends 122.7 mm ✓ Depth of flange if manhole flanged 85 mm Steam Dome: Material.....

Tensile strength..... Thickness of shell..... Description of longitudinal joint.....

Diameter of rivet holes..... Pitch of rivets..... Percentage of strength of joint { Plate.....
Rivets.....

Internal diameter..... Thickness of crown..... No. and diameter of stays.....

How connected to shell..... Inner radius of crown.....

Size of doubling plate under dome..... Diameter of rivet holes and of rivets in outer row in dome connection to shell.....

Type of Superheater..... Manufacturers of { Tubes.....
Steel forgings.....
Steel castings.....

Number of elements..... Material of tubes..... Internal diameter and thickness of tubes.....

Material of headers..... Tensile strength..... Thickness..... Can the superheater be shut off the boiler be worked separately.....

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler.....

Area of each safety valve..... Are the safety valves fitted with easing gear.....

Pressure to which the safety valves are adjusted..... Hydraulic test pressure.....

tubes..... forgings and castings..... and after assembly in place..... Are drain valves fitted to free the superheater from water where necessary.....

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with..... Yes

The foregoing is a correct description,

St. J. J. J.
NAGASAKI SHIPYARD & ENGINE WORKS, Manufact
WEST JAPAN HEAVY-INDUSTRIES, LTD.

Dates of Survey while building { During progress of work in shops - - June 25, July 3, 4, 5, 13, 17, 18, 23, 28
Aug, 2, 4, 7, 9, 10, 13, 23.
During erection on board vessel - - Sep. 4, 17, 30, Oct. 1, 4, 31, Nov. 8, 10

Are the approved plans of boiler and superheater forwarded herewith 8th May (If not state date of approval.)

Total No. of visits..... 24

Is this Boiler a duplicate of a previous case..... If so, state Vessel's name and Report No.....

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.).....

The Donkey Boiler of this vessel has been constructed under Special Survey in accordance with the Rules
Approved plans and Secretary's letter
Materials & workmanship are good
The Donkey Boiler has been examined under steam, the Safety valves were adjusted to 7 Kgs per sq. cm.
and found satisfactory.

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

J. B. J. J. J.
Engineer Surveyor to Lloyd's Register of Ship

FRI. 6 JUN 1952

Committee's Minute.....

Assigned Su F. E. Moley, rpt.



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