

REPORT ON BOILERS.

No. 1458-C

Received at London Office.

3-AUG.1954

Date of writing Report 30th June 1954 When handed in at Local Office JUL 10 1954 Port of YOKOHAMA

No. in Survey held at Yokohama, Japan Date, First Survey 19th Oct. 1953 Last Survey 28th June 1954

Reg. Book. on the Steel screw M.V. "TAMON MARU" (Number of Visits 32) Tons {Gross 7713.61... Net 4425.92...

Built at Yokohama, Japan By whom built Uraga Shipbuilding Yard, The Uraga Dock Co., Ltd. Yard No. 655 When built 6-54

Engines made at Yamashima, Japan By whom made Uraga Yamashima Diesel Kogyo K.K. Engine No. 245 When made 3-54

Boilers made at Yokohama, Japan By whom made Uraga Shipbuilding Yard, The Uraga Dock Co., Ltd. Boiler No. 10717 (YAR-46) When made 4-54

MN as per Rule Owners Hachiuma Kisen K.K. Port belonging to Nishinomiya

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Yawata Iron & Steel Mfg. Co., Ltd., Yawata Sumitomo Metal Industrial Co., Ltd., Steel Tube Works, Amagasaki.
Nippon Steel Tube Co., Ltd. (Nippon Kogan K.K.), Tsurumi Iron & Steel Works.Total Heating Surface of Boilers oil fired 90.2 m² total 205.7 m² 295.9 m² Of Superheaters.

Total for Register Book Is forced draught fitted yes Coal or Oil fired oil fired + exhaust gas

No. and Description of Boilers One (1) cylindrical single ended composite dry combustion Working Pressure 10 kg/cm²Tested by hydraulic pressure to 18.5 kg/cm² Date of test 14-4-54 No. of Certificate YAR-46 Can each boiler be worked separately yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two (2) full bore spring loaded type

Area of each set of valves per boiler {per Rule 38.1 cm² as fitted 49 " Pressure to which they are adjusted 10.2 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 2000 mm Is oil fuel carried in the double bottom under boilers NO

Smallest distance between shell of boiler and tank top plating 5200 mm Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 4100 mm Length 3342 mm Shell plates: Material O.H. steel Tensile strength 47.3, 49.7 kg/mm²

If fusion welded, state name of welding Firm Have all the requirements of the Rules for Class 1 vessels

been complied with Thickness 26 mm Are the shell plates welded or flanged Riveted Description of riveting: circ. seams end double riveted lap joint

long. seams {butt joint double riveted double Diameter of rivet holes in {circ. seams 29.5 mm long. seams 29.5 " Pitch of rivets {inter 83.05 mm plate 96, 192 "

Percentage of strength of circ. end seams {plate 64.4 % rivets 50.6 " Percentage of strength of circ. intermediate seam {plate 84.6 % rivets 102.5 "

Percentage of strength of longitudinal joint {plate 89.9 % rivets 102.5 " combined 89.9 "

Thickness of butt straps {outer 22 mm inner 25 " No. and Description of Furnaces in each Boiler One (1) Morrison type

Material O.H. steel Tensile strength 46.1, 46.3 kg/mm² Smallest outside diameter 780 mm 980 mm

Length of plain part {top bottom Thickness of plates 15 mm Description of longitudinal joint Butted welded

Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material O.H. steel Tensile strength 43.4, 45.6 kg/mm² Thickness 26 mm Pitch of stays 400 x 450

How are stays secured Threaded on both ends & secured with washers & nuts inside & outside

Tube plates: Material {front O.H. steel Tensile strength {41.0, 44.4 kg/mm² Thickness {Upper 26 mm Lower 24 mm back O.H. steel 43.4, 46.4 " 26 "

Mean pitch of stay tubes in nests 248 mm Pitch across wide water spaces 360 mm

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 Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Front plate at bottom: Material O.H. steel Tensile strength 47.0 kg/mm²Thickness 24 mm Lower back plate: Material O.H. steel Tensile strength 47.2 kg/mm² Thickness 26 mm

Pitch of stays at wide water space Are stays fitted with nuts or riveted over Nuts inside & outside

Main stays: Material O.H. steel Tensile strength 47.2 kg/mm²

Diameter {At body of stay 70 mm No. of threads per inch 6 Over threads 70 "

Screw stays: Material Tensile strength

Diameter {At turned off part No. of threads per inch Over threads

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 O.H. steel ✓ External diameter { Plain 70 mm ✓
Stay 70 " ✓ Thickness { 4 mm ✓
9.5 " ✓ No. of threads per inch 9 ✓

Pitch of tubes 100 x 98 mm ✓ Manhole compensation: Size of opening in shell plate 470 x 570 mm ✓ Section of compensating ring 144 cm² ✓ No. of rivets and diameter of rivet holes NO. 44, Dia. 29.5 mm ✓

Outer row rivet pitch at ends 192 mm ✓ Depth of flange if manhole flanged 95 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 pitch 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 and 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 cocks or 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,

J. P. [Signature] Manufacturer.

1953: OCT. 19, 30 NOV. 6, 13, 18, 25 DEC. 7, 9, 14, 23, 26, 28

1954: JAN. 8, 13, 20, 22 FEB. 8, 12, 16 MAR. 10, 19 APR. 14, 16

Are the approved plans of boiler and superheater forwarded herewith 26-11-53 (If not state date of approval.)

Dates of Survey while building { During progress of work in shops - - - } 1954: MAY 24, 28

During erection on board vessel - - - } 1954: JUNE 3, 11, 14, 19, 22, 24, 25, 28

Total No. of visits 32

Is this Boiler a duplicate of a previous case..... yes..... If so, state Vessel's name and Report No. M.V. "EISHIN MARU" 813 D

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

The Donkey Boiler has been constructed under the supervision of the Society's Surveyors in accordance with the Rules, approved plans and Secretary's letters.

The workmanship and materials were found to be satisfactory.

The Donkey Boiler has been satisfactorily installed in the vessel and examined under steam and the safety valves adjusted as stated.

It is submitted, that the Donkey Boiler is eligible to be classed with this Society with the notation of DBS 6.54.

Survey Fee £ ¥81,000.-

Travelling Expenses (if any) £ see 46

When applied for 2nd June 1954

When received.....19.....

[Signature]
[Signature]
Engineer Surveyor to Lloyd's Register of Shipping.

[Signature]
Committee's Minute.....

Assigned See Rpt. 46

FRIDAY 10 SEP 1954



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