

REPORT ON BOILERS.

No. 1458-D

B-AUR

Received at London Office.....

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

No. in Reg. Book. Survey held at Yokosuka, Japan Date, First Survey 19th Oct. 1953 Last Survey 28th JUNE 1954

on the Steel screw M.V. "TAMON MARU" (Number of Visits...22.....) Tons {Gross 7713.61 Net 4435.92}

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

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

Boilers made at Yokosuka, Japan By whom made Uraga Shipbuilding Yard, The Uraga Dock Co. Ltd. Boiler No. 10718 (YAR 47) When made 4-54

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

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 Kokan K.K.), Tsurumi Iron & Steel Works

Total Heating Surface of Boilers 190.7 m² ✓ Of Superheaters -

Total for Register Book Is forced draught fitted Yes ✓ Coal or Oil fired oil fired

No. and Description of Boilers One (1) cylindrical single ended dry condensation (Howden-Jensen type) Working Pressure 10 kg/cm² ✓Tested by hydraulic pressure to 18.5 kg/cm² Date of test 30-4-54 No. of Certificate YAR-47 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 33 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 46.0, 48.9 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 inter -

long. seams {Double riveted double butt strap joint Diameter of rivet holes in {circ. seams 29.5 mm ✓ long. seams 29.5 " ✓ Pitch of rivets {83.05 mm ✓ 96 192 ✓

Percentage of strength of circ. end seams {plate 64.4 % rivets 50.6 % Percentage of strength of circ. intermediate seam {plate - rivets -

Percentage of strength of longitudinal joint {plate 84.6 % rivets 102.5 % combined 89.9 %

Thickness of butt straps {outer 22 mm ✓ inner 25 " ✓ No. and Description of Furnaces in each Boiler Three (3) Morrison type ✓

Material O.H. Steel ✓ Tensile strength 46.1, 46.4, 46.7 kg/mm² ✓ Smallest outside diameter 780 mm 980 mm

Length of plain part {top - bottom - Thickness of plates 15 mm ✓ Description of longitudinal joint Butt welded ✓

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

End plates in steam space: Material O.H. Steel ✓ Tensile strength 42.6, 44.4 kg/mm² ✓ Thickness 26 mm ✓ Pitch of stays 400 x 450 mm ✓

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

Tube plates: Material {front O.H. steel ✓ back O.H. steel ✓ Tensile strength {42.0, 42.6 kg/mm² ✓ 41.9, 44.4 " Thickness {Upper 26 mm ✓ Lower 22 mm ✓ 26 " ✓ 22 " ✓

Mean pitch of stay tubes in nests 248 mm ✓ Pitch across wide water spaces 340 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 42.0 kg/mm² ✓Thickness 22 mm ✓ Lower back plate: Material O.H. steel ✓ Tensile strength 41.9 kg/mm² ✓ Thickness 26 mm 22 mm

Pitch of stays at wide water space Front: 1460 mm Back: 1704 mm Are stays fitted with nuts or riveted over Nuts inside & outside ✓

Main stays: Material O.H. steel ✓ Tensile strength 47.2, 48.1 kg/mm² ✓

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

Screw stays: Material - Tensile strength -

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

GENERAL REMARKS

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 ✓ No. of threads per inch 9 ✓

Pitch of tubes 98 x 100 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..... 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.....

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

Pressure to which the safety valves are adjusted..... Are the safety valves fitted with easing gear.....

tubes..... forgings and castings..... and after assembly in place.....

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.....

The foregoing is a correct description, [Signature] Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1953: OCT. 19, NOV. 25, DEC. 14, 26 1954: FEB. 16, 19, MAR. 12, APR. 21, 23, 30 During erection on board vessel - - - 1954: MAY 24, 28 JUNE 3, 11, 14, 19, 22, 24, 25, 28

Are the approved plans of boiler and superheater forwarded herewith..... 27-11-53 (If not state date of approval.)

Total No. of visits..... 20

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

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 £63,000.- } When applied for, 2nd June 1954

Travelling Expenses (if any) £ see 4b: } When received..... 19.....

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... FRIDAY 10 SEP 1954

Assigned..... See Rpt. etc.



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