

Rpt. 5a.

REPORT ON BOILERS.

No. FE-3026

14 OCT 1955

Received at London Office

Date of writing Report 19 When handed in at Local Office SEP. 26. 1955 19 Port of Kobe, Japan

No. in Reg. Book. Survey held at Kobe Date, First Survey 11-2-1955 Last Survey 18-7-1955

on the Steel Single Screw M.V. "HIKAWA MARU" (Number of Visits 20) Tons { Gross 8092.32 Net 5600.79

Built at Kobe By whom built Kawasaki Dockyard Co., Ltd. Yard No. 940 When built 7-'55

Engines made at Kobe By whom made Kawasaki Dockyard Co., Ltd. Engine No. 1175 When made 7-'55

Boilers made at Kobe By whom made Kawasaki Dockyard Co., Ltd. Boiler No. 1200 When made 7-'55

MN as per Rule Owners Nippon Kisen Co., Ltd. Kawasaki Kisen Co., Ltd. Port belonging to Kobe, Japan.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Plates:- Yawata Iron and Steel Company Ltd.

Manufacturers of Steel Tubes:- Sumitomo Metal Industries, Ltd., Steel Tube Works. Amagasaki

Total Heating Surface of Boilers 324 M² Of Superheaters ---

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

No. and Description of Boilers One (1), Dry Combustion Cylindrical Multitubular Boiler Working Pressure 10 Kg/cm²

Tested by hydraulic pressure to 18.5 Kg/cm² Date of test 6-6-'55 No. of Certificate B625 Can each boiler be worked separately ---

Area of Firegrate in each Boiler --- No. and Description of safety valves to each boiler Two (2) x Spring loaded high lift type

Area of each set of valves per boiler { per Rule as approved 100.5 cm² Pressure to which they are adjusted 10 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 --- Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 900 mm Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 4.744 mm Length 3.652 m Shell plates: Material Boiler plate Tensile strength 48.2 - 51.0 Kg/mm²

If fusion welded, state name of welding Firm Kawasaki Dockyard Co., Ltd. Have all the requirements of the Rules for Class I vessels been complied with Yes Thickness 28 mm Are the shell plates welded or flanged Welded Description of riveting: circ. seams { end --- inter ---

long. seams --- Diameter of rivet holes in { circ. seams --- long. seams --- Pitch of rivets { ---

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

Percentage of strength of longitudinal joint { plate --- rivets --- combined ---

Thickness of butt straps { outer --- inner ---

No. and Description of Furnaces in each Boiler Three (3), Morison Corrugated Type

Material Boiler plate Tensile strength 44.0 46.3 Kg/mm² Smallest outside diameter 960 mm

Length of plain part { top --- bottom --- Thickness of plates 16 mm Description of longitudinal joint Welded

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

End plates in steam space: Material Boiler plate Tensile strength 45.8-46.8 Kg/mm² Thickness 28 mm Pitch of stays 400 mm

How are stays secured Nuts and washers from both side of the plate.

Tube plates: Material { front Boiler plate Tensile strength { 46.4 - 46.8 kg/mm² 45.8 - 45.9 kg/mm² Thickness { 28 mm 28 mm

Mean pitch of stay tubes in nests 196 mm x 200 mm Pitch across wide water spaces 320 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 Boiler plate Tensile strength 44.0 - 44.1 kg/mm² Thickness 28 mm

Lower back plate: Material Boiler plate Tensile strength 45.9 kg/mm² Thickness 28 mm

Pitch of stays at wide water space Front 1,670 mm, Back 1880 mm Are stays fitted with nuts or riveted over Yes

Main stays: Material O. H. Steel Tensile strength 47.2 - 49.0 kg/mm²

Diameter { At body of stay 65 mm & 59 mm No. of threads per inch 6

Screw stays: Material --- Tensile strength ---

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

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 70mm, water tube 60.3mm 3.5mm W.T. 3.5mm ✓
Stay 70 mm Thickness { 7 mm No. of threads per inch 9 ✓
Pitch of tubes 98 x 100 mm Water tube 110 mm Manhole compensation: Size of opening in -----
shell plate 480mm x 580 mm ✓ Section of compensating ring 2 x 28 x 257mm ✓ No. of rivets and diameter of rivet holes -----
Outer row rivet pitch at ends ----- Depth of flange if manhole flanged 110 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 ----- Inner radius of crown -----
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 ----- 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,

Saburo Yamana Manufacturer

Managing Director of Kawasaki Dockyard Co., Ltd.

Dates of Survey while building { During progress of work in shops -- Feb. 11, 21, Mar. 18, 22, 25, Apr. 1, 4, 13, 16, 19, 20, 22, 25, 28 May 16, 26 June 6
During erection on board vessel --- July 4, 15, 18, 1955
Are the approved plans of boiler and superheater forwarded herewith 4-4-1955
(If not state date of approval.)
Total No. of visits 20

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.)

The Boiler of this vessel has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters.

The Materials and workmanship are sound in good.

The Boiler has been examined under steam and the safety valves adjusted to 10 kg/cm² and found satisfactory.

Survey Fee ¥ 97,500 When applied for AUG - 3, 1955 19
Travelling Expenses (if any) ¥ See Rpt. 1 When received 19

Saburo Yamana
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUESDAY 10 JAN 1956

Assigned

See Rpt. 4 c.



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