

REPORT ON BOILERS.

No. FE-5181

21 JAN 1958

of writing Report JAN 6. 1958 19..... When handed in at Local Office JAN 13. 1958 19..... Port of KOBE

in Survey held at Aioi, Japan Date, First Survey 28th Feb., 1957 Last Survey 10th Oct., 19 57.

on the Steel Single Screw M.V. "HOEI MARU" (Number of Visits 29.....) Tons { Gross 20,157.13 Net 14,000.38

t at Aioi, Japan By whom built Harima S.B. & Eng., Co., Ltd. Yard No. 512 When built 1957-10

ines made at Aioi, Japan By whom made Harima S.B. & Eng., Co., Ltd. Engine No. 142 When made 1957-10

ers made at Aioi, Japan By whom made Harima S.B. & Eng., Co., Ltd. Boiler No. B-1007 When made 1957-10

as per Rule 48.7 2 Owners Nitto Shosen K.K. Port belonging to Tokyo

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Plate & Rivet bar: Yawata Iron & Steel Co., Ltd. Tube: Sumitomo Kinzoku K.K.

al Heating Surface of Boilers 48.7 M² Of Superheaters -

urpose ul for Register Book 48.7 M² Is forced draught fitted. No Coal or Oil fired. Oil

ng at fu and Description of Boilers 1 - Cylindrical Multitubular dry back Boiler Working Pressure 8.5 kg/cm²

ed by hydraulic pressure to 16.25 kg/cm² Date of test 12-8-57 No. of Certificate B-1007 Can each boiler be worked separately -

a of Firegrate in each Boiler - No. and Description of safety valves to each boiler 2 x 80ø bore ordinary type

a of each set of valves per boiler { per Rule As approved 15.55 in² Pressure to which they are adjusted 8.5 kg/cm² Are they fitted with easing gear Yes

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

llest distance between boilers or uptakes and bunkers or woodwork 450mm Is oil fuel carried in the double bottom under boilers. No

llest distance between boilers /shell of 800 mm Is the bottom of the boiler insulated. Yes

est internal dia. of boilers 2,300mm Length 2,200mm Shell plates: Material Boiler plate Tensile strength 49.0-49.8 kg/mm²

anken sion welded, state name of welding Firm Harima S.B. & Eng., Co., Ltd. Have all the requirements of the Rules for Class I vessels

complied with Yes Thickness 14mm Are the shell plates welded or flanged Welded Description of riveting: circ. seams { end. inter. 53.81mm

seams - Diameter of rivet holes in { circ. seams 23mm long. seams - Pitch of rivets {

entage of strength of circ. end seams { plate 57.3% rivets 43.7% Percentage of strength of circ. intermediate seam { plate rivets

entage of strength of longitudinal joint { plate rivets combined

knness of butt straps { outer inner

rial Boiler plate No. and Description of Furnaces in each Boiler 1. Plain furnace with 2 corrugations

th of plain part 1650 mm Tensile strength 43.3 - 43.8 kg/mm² Smallest outside diameter 898 mm

ensions of stiffening rings on furnace or c.c. bottom Thickness of plates 12mm Description of longitudinal joint Welding

plates in steam space: Material Boiler plate Tensile strength 42.2-46.7 kg/mm² Thickness 22mm Pitch of stays 440mm

are stays secured Washer and nuts on both sides of end plate

plates: Material { front Boiler plate Tensile strength 42.2 kg/mm² Thickness 22mm

back Boiler plate Tensile strength 45.7 kg/mm² Thickness 22mm

pitch of stay tubes in nests 283.5 mm Pitch across wide water spaces 380mm

ers to combustion chamber tops: Material - Tensile strength - Depth and thickness of girder

ntre - Length as per Rule - Distance apart - No. and pitch of stays

ch - Combustion chamber plates: Material -

le strength - Thickness: Sides - Back - Top - Bottom -

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

t plate at bottom: Material Same as tube plate Tensile strength 42.2 kg/mm²

ness 24mm Lower back plate: Material Same as tube plate Tensile strength 46.7 kg/mm² Thickness 22mm

eg of stays at wide water space - Are stays fitted with nuts or riveted over -

stays: Material Boiler Steel Bar Tensile strength 48.9 kg/mm²

At body of stay 55mm No. of threads per inch 6 T/in

Over threads 55mm

stays: Material - Tensile strength -

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, -
Over threads. -
No. of threads per inch. -
Tubes: Material Steel Tube External diameter { Plain 70mm
Stay 70mm Thickness 4 mm No. of threads per inch 7 Th
Pitch of tubes 95 x 98 mm Manhole compensation: Size of opening Welded
shell plate 440 x 540mm Section of compensating ring 9.41 in² No. of rivets and diameter of rivet holes 80mm
Outer row rivet pitch at ends. - Depth of flange if manhole flanged. - 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 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 from the boiler. -
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.

THE HARMON SHIPBUILDING & ENGINEERING CO., LTD.

Dates of Survey while building { During progress of work in shops - - 1957: Feb. 28, March 22, April 20, 23, 26, 30, May 2, 7, 10, 14, 17, 21, 24, 31, June, July 5, 16, 19, 23, 24, Aug. 1, 9, 12, 13, Sept. 6
During erection on board vessel - - 1957: Sept. 20, Oct. 10
Total No. of visits. 28

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 Donkey Boiler of this ship has been constructed under Special Survey in accordance with the Rules, Approved Plans and Secretary's letters.

The materials and workmanship are sound and good.

The Donkey Boiler has been examined under steam and the safety valves adjusted to 8.5 and found satisfactory.

An accumulation test was carried out with satisfactory results.

The oil full burning arrangements and the steam fire extinguishing systems have also satisfactorily installed and tested.

Identification of Steel:

		Insp. No. or Roll. No.	Charge No.	Maker
Shell Plate	14 x 2,100 x 4,000 = 1	R 2318	S 61202	Yawata Iron & Steel Co.
	14 x 2,100 x 4,000 = 1	R 1592	S 61202	- " -
End Plate	22 x 2,700 x 2,700 = 1	R 9755	D 24727	- " -
End Plate (Back Bottom)	24 x 1,600 x 4,860 = 1	J1526 (Roll No.)	I-5744	Kawasaki Steel Corporation Fukiai Plant
Furnace	13 x 1,400 x 2,900 = 1	R 7110	D 24926	Yawata Iron & Steel Co.
Survey Fee	13 x 1,400 x 2,900 = 1	R 7111	D 24926	- " -
Travelling Expenses (if any)	13 x 1,200 x 2,900 = 1	R 1615	D 24486	- " -
Survey Fee	: ¥24,000.-	When received	19	
Expenses	: See Rpt. 1			

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute. TUESDAY 25 MAR 1958

Assigned. See Rpt. 1.



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