

Date of writing Report 19 When handed in at Local Office 19 Port of Kobe

No. in Survey held at Kobe Date, First Survey 25th June 1918 Last Survey 17th Feb 1919
Reg. Book. on the Steel Single Screw Steamer "Jufuku Maru" (K. Yd. No. 434) Tons { Gross 5858
Master Built at Kobe By whom built The Kawasaki Dock Co. Ltd. When built 1919
Engines made at Kobe By whom made The Kawasaki Dock Co. Ltd. when made 1919
Boilers made at Do By whom made Do when made 1919
Registered Horse Power Owners Do Port belonging to Kobe
Nom. Horse Power as per Section 28 444 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three
Dia. of Cylinders 26": 13 1/2": 72" Length of Stroke 18" Revs. per minute 70 Dia. of Screw shaft as per rule 15 1/4" Material of screw shaft Steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No Liner Is the after end of the liner made water tight
in the propeller boss ✓ If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part
between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓ If two
liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5': 5 1/2"
Dia. of Tunnel shaft as per rule 13 1/4" Dia. of Crank shaft journals as per rule 14 1/8" Dia. of Crank pin 14 3/4" Size of Crank webs 9 1/2" x 20 1/2" Dia. of thrust shaft under
collars 14 3/8" Dia. of screw 17': 6" Pitch of Screw 19': 0" mean No. of Blades 1 State whether moveable Yes Total surface Shaped 100 sq. ft.
No. of Feed pumps One Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes (+ Weir's feed)
No. of Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Donkey Engines Three Sizes of Pumps Bal. 10" x 11" x 12" dup. No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Three 3 1/2" Gen. Service 7 1/2" x 5" x 6" dup. In Holds, &c. Nos. 1, 3 + 1 holds, two 3 1/2"
One 3 1/2" to tunnel well No. 2 hold two 4"
No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"
Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Larger Valves: Smaller Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line Above
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
What pipes are carried through the bunkers None How are they protected ✓
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
Dates of examination of completion of fitting of Sea Connections 25.1.19 of Stern Tube 15.1.19 Screw shaft and Propeller 27.1.19
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform E. Rm.
BOILERS, &c.—(Letter for record S) Manufacturers of Steel Works, Ltd. & Co. Illinoise Steel Co. Inc. Spencer & Sons. Allen & Wood Steel Co.
Amer. Special Pipe Works. Kawasaki Heavy Works. Carnegie Steel Co.
Total Heating Surface of Boilers 5809 sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers Two single ended
Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 18 + 22 Oct 19 No. of Certificate 400 LBS
Can each boiler be worked separately Yes Area of fire grate in each boiler 63 1/2 sq. ft. No. and Description of Safety Valves to
each boiler Two direct Spring Area of each valve 11.04 sq. in. Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 16': 0" Length 12': 0" Material of shell plates Steel
Thickness 1 1/2" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double riv.
long. seams Triple riv. Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10" x 5" Lap of plates or width of butt straps 21 1/2" x 1 3/8"
Per centages of strength of longitudinal joint rivets 97.00 plate 81.34 Working pressure of shell by rules 207 lbs. Size of manhole in shell (16" x 12" in end plate)
Size of compensating ring End pl. flanged No. and Description of Furnaces in each boiler 3 Morrison's Material Steel Outside diameter 50 1/2"
Length of plain part top 11' 1/16" Thickness of plates crown 11' 1/16" Description of longitudinal joint Weld No. of strengthening rings
Working pressure of furnace by the rules 221 lbs. Combustion chamber plates: Material Steel Thickness: Sides 11' 1/16" Back 11' 1/16" Top 11' 1/16" Bottom 7' 1/8"
Pitch of stays to ditto: Sides 9 3/4" x 8 1/2" Back 8 x 9 1/2" Top 9 1/2" x 8 3/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 200 lbs.
Material of stays Steel Diameter at smallest part 2.1" Area supported by each stay 8 1/2" x 9 1/2" Working pressure by rules 230 lbs. End plates in steam space:
Material Steel Thickness 1 1/16" Pitch of stays 16 1/2" x 19 1/4" How are stays secured Double Nuts Working pressure by rules 205 lbs. Material of stays Steel
Diameter at smallest part 7.5" Area supported by each stay 16 1/2" x 19 1/4" Working pressure by rules 240 lbs. Material of Front plates at bottom Steel
Thickness 13/16" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" at Wide Working pressure of plate by rules 200 lbs.
Diameter of tubes 3 1/2" Pitch of tubes 14 1/2" x 14 5/16" Material of tube plates Steel Thickness: Front 13/16" Back 13/16" Mean pitch of stays 10 1/4"
Pitch across wide water spaces 13 3/4" Working pressures by rules 200 lbs. Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 10 3/4" x 13/16" Length as per rule 35 1/4" Distance apart 9 3/16" Number and pitch of stays in each Three @ 8 3/8"
Working pressure by rules 230 lbs. Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

VERTICAL DONKEY BOILER—None Manufacturers of Steel

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—

Four main bearing bolts + nuts Set coupling bolts + nuts Set packing rings + springs each piston
Two Crank pin " " Set feed + bilge pump valves Set junk ring bolts + nuts
Two Crosshead " " Assorted bolts + nuts + iron Propeller shaft
Four blades + 2 sets studs + nuts
Slide valve spindle each size
Centrifugal pump impeller + shaft.
Crosshead + Crankpin brasses, A. Prod + nut
3 safety valve springs. Cond. + blv. tubes
etc etc.

The foregoing is a correct description,
Kawasaki Dockyard Co., Ltd.,
Manufacturer.

Per J. C. Kane
 Dates of Survey while building { During progress of work in shops - - Secretary. 25 June 4 11. 29 July 3. 5. 8. 10. 12. 16. 22 Aug 21. 25. 27 Sept. 2. 12. 17. 22. 23 Oct
 { During erection on board vessel - - 13. 27. Nov. 2. 3. 14. 19. 28. Dec. 1918. 13. 15. 18. 20. 25. 27. 30 Jan. 4. 5. 10. 12. 15. 17 Feb 1919
 Total No. of visits 39

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 2/12/19 Slides 2/12/19 Covers 19/12/19 Pistons 13/11/19 Rods 23.10.18
 Connecting rods 23.10.18 Crank shaft 12.10.18 Thrust shaft 12.10.18 Tunnel shafts 23.10.18 Screw shaft 14.12.18 Propeller 28.12.18
 Stern tube 28/12/18 Steam pipes tested 27.30/1/19 Engine and boiler seatings 20/1/19 Engines holding down bolts 10.2.19
 Completion of pumping arrangements 5.2.19 Boilers fixed 10.2.19 Engines tried under steam 15/2/19
 Main boiler safety valves adjusted 10/2/19 Thickness of adjusting washers docknuts intervals Port Bl F 1/2 Star B A 7/4
 Material of Crank shaft Steel Identification Mark on Do. LLOYDS 12.10.18 Material of Thrust shaft Steel Identification Mark on Do. 12.10.18
 Material of Tunnel shafts Steel Identification Marks on Do. LLOYDS 12.10.18 Material of Screw shafts Steel Identification Marks on Do. LLOYDS 14.12.18
 Material of Steam Pipes Steel 12.10.18: 23.10.18 Test pressure 600 lbs
 Sister to "Yokufuku Maru" Spare: 13.1.19

General Remarks (State quality of workmanship, opinions as to class, &c.

The machinery has been made & fitted under Special Survey in accordance with the requirements of the Rules & the materials & workmanship are satisfactory.

The vessel is in my opinion eligible for the notation + LMC 2-19

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 2-19. FD.

YK
JED. 23/4/19 JPR

The amount of Entry Fee	.. 30	When applied for,
Special	.. 2/35	2/ Feb 1919
Donkey Boiler Fee	.. 40	When received,
Travelling Expenses (if any)	.. 15	7 Mar 1919

Committee's Minute
Assigned
FRI APR 25 1919
+ LMC 2-19 J.L.

Arthur L. Jones
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.