

# REPORT ON MACHINERY.

No. 2639

Received at London Office

MGN 8-MAR 1920

Survey Report

19

When handed in at Local Office

19

Port of Kobe

Survey held at Osaka + Imoshima Date, First Survey 9-2-19 Last Survey 23-9-1919

on the Steel Single Screw Steamer "YESAKI MARU" (Number of Visits 26) Gross 4372 Tons Net 2658

Araki Built at Bingo By whom built The Osaka Iron Works, Ltd. When built 1919

made at Imoshima By whom made The Osaka Iron Works, Ltd. when made 1919

made at Osaka By whom made The Osaka Iron Works, Ltd. when made 1919

Horse Power Owners Tokusai Kisen Kaishiki Kaisha Port belonging to Kobe

Power as per Section 28 380 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 3

Cylinders 24: 41: 67 Length of Stroke 48" Revs. per minute 65 Dia. of Screw shaft as per rule 13.96 Material of steel as fitted 14 1/2 screw shaft

shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight

propeller boss yes If the liner is in more than one length are the joints burned 1 length If the liner does not fit tightly at the part

bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fitted tightly If two

fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-4"

crank shaft as per rule 12.46 Dia. of Crank shaft journals as per rule 13.09 Dia. of Crank pin 13 1/2 Size of Crank webs 8 1/2 x 25 Dia. of thrust shaft under as fitted 12 3/4 as fitted 13 1/4

3/4 Dia. of screw 17'-0" Pitch of Screw 17'-0" No. of Blades 4 State whether moveable no Total surface 90°

ed pumps Two Diameter of ditto 4 Stroke 25" Can one be overhauled while the other is at work yes

ge pumps Two Diameter of ditto 4 1/2 Stroke 25" Can one be overhauled while the other is at work yes

Donkey Engines Two Sizes of Pumps Bal. 9 1/2 x 12 x 10 dupl. Gen. 7 1/2 x 5 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

Room Three 3 1/2" and One 3 1/2" to Tunnel Well In Holds, &c. Nos. 1 + 2 Holds each 3 1/2" Centre + two 2 3/4 wings After Hold 2 - 2 3/4" Centre + 2 - 2 3/4 wings

injections 1 sizes 7" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room of size yes 3 1/2"

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

connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Larger Valves: Smaller Cocks

red 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

h 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

are carried through the bunkers none How are they protected

pes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

ge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

no Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from up' grating in E. Rm.

S, &c.—(Letter for record S.) Manufacturers of Steel Lukens St. Co; Pacific Coast St. Co; Allegheny St. Co. Amer. Spiral Pipe Co. 2. S.B.

ating Surface of Boilers 5400 Is Forced Draft fitted yes No. and Description of Boilers Two single ended

Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test S. 5-7-19 No. of Certificate 20-5-19 360 lbs. 5-7-19

boiler be worked separately yes Area of fire grate in each boiler 63.9 sq. ft. (P) 63.25 sq. ft. (S) No. and Description of Safety Valves to

3/2 x Two Spring loaded Area of each valve 3" dia. Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear yes

stance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 15'-0" Length 12'-0" Material of shell plates steel

For 5/16 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Doub. riv.

Doub. rivets Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 9" + 4 1/2" Lap of plates or width of butt straps 19 1/2" 1 1/4" (in) 1" (out)

is tes of strength of longitudinal joint rivets 87.2 plate 85.2 Working pressure of shell by rules 197 lbs. Size of manhole in shell 12" x 16" 48 3/4 (P) 48 1/4 (S)

compensating ring 2'-10" x 3'-2" 1 1/4" (S) and Description of Furnaces in each boiler 3" Morrison Material steel Outside diameter 48 3/4 (P) 48 1/4 (S)

plain part top 1 1/4" (S) crown 2 1/2" (P) Description of longitudinal joint Weld No. of strengthening rings 1

bottom 1 1/4" (S) bottom 1 1/4" (S) Thickness of plates bottom 1 1/4" (S) Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"

pressure of furnace by the rules 196 lbs. Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"

ays to ditto: Sides 8" x 8 1/4" Back 8 1/2" x 8 1/2" Top 8" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 186 lbs.

ngth of stays steel Area at smallest part 1.79 sq. ft. Area supported by each stay 8 1/2" x 8 1/2" Working pressure by rules 223 lbs. End plates in steam space:

Steel Thickness 1 1/2" Pitch of stays 18" x 20" How are stays secured Doub. nuts Working pressure by rules 194 lbs. Material of stays steel

smallest part 7.50 sq. ft. Area supported by each stay 8" x 20" Working pressure by rules 216 lbs. Material of Front plates at bottom steel

3/4" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 14" wide up Working pressure of plate by rules 180 lbs.

of tubes 3" Pitch of tubes 4 1/4" x 4 1/8" Material of tube plates steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9 1/2"

eross wide water spaces 1 3/4" double Working pressures by rules 200 lbs. Girders to Chamber tops: Material steel Depth and

f girder at centre 9 3/4" x 7 1/2" (two) Length as per rule 33 1/2" Distance apart 9" Number and pitch of stays in each 3 @ 8"

pressure by rules 217 lbs. Steam dome: description of joint to shell % of strength of joint

Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Working pressure of shell by rules Crown plates Thickness How stayed

TEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

f Safety Valve Pressure to which each is adjusted Is Easing Gear fitted



IS A DONKEY BOILER FITTED? No

SPARE GEAR. State the articles supplied:—

If so, is a report now forwarded?

Set coupling bolts + nuts ✓ 2 main bearing bolts + nuts ✓ Piston springs all pi  
Crank + Crosshead brasses ✓ Valve spindles, Ecc. Rods ✓ a + c. pump rods  
Set Feed + Bilge pump valves ✓ Feed check valves + seats ✓ Steel plates etc.  
2 safety valves + springs ✓ assorted bolts + nuts  
1 Crosshead bolts + nuts ✓ 2 Crank-pin bolts + nuts

The foregoing is a correct description,



1919  
Dates of Survey while building { During progress of work in shops - Febr. 9, 19, 28  
During erection on board vessel - 29; Aug. 7, 13, 20, 22, 24; Sept. 5, 9, 15, 16, 17, 22  
Total No. of visits 26

Dates of Examination of principal parts—Cylinders 21-3-19 Slides 21-3-19 Covers 11-4-19 Pistons 11-4-19 Rods 17-3-19  
Connecting rods 17-3-19 Crank shaft 16-7-19 Thrust shaft 17-3-19 Tunnel shafts 17-3-19 Screw shaft 16-7-19 Propeller 7-8-19  
Stern tube 10-7-19 Steam pipes tested 9-9-19 Engine and boiler seatings 20-8-19 Engines holding down bolts 20-9-19  
Completion of pumping arrangements 20-8-19 Boilers fixed 7-9-19 Engines tried under steam 13-9-19  
Completion of fitting sea connections 20-8-19 Stern tube 13-8-19 Screw shaft and propeller 20-8-19  
Main boiler safety valves adjusted 17-9-19 Thickness of adjusting washers Lock nut.  
Material of Crank shaft Steel Identification Mark on Do. Lloyd's J.S.R.  
Material of Tunnel shafts Steel Identification Marks on Do. Lloyd's J.S.R.  
Material of Steam Pipes Steel  
Is an installation fitted for burning oil fuel No  
Have the requirements of Section 49 of the Rules been complied with No  
Is this machinery duplicate of a previous case yes  
General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery has been made + fitted under Special Survey in accordance with the Rules and the materials + workmanship are good.  
The vessel is eligible in my opinion for the notation L.M.C. 9-19.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 9-19.F.D.

Certificate (if required) to be sent to The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... Yen 30-  
Special ... £ 691-  
Donkey Boiler Fee ... £  
Travelling Expenses (if any) £  
When applied for, 22-Sept. 1919  
When received, 4-Nov. 1919  
FRI. 12 MAR. 1920

Committee's Minute Assigned

John Sim.  
A. Jones & Y. Jo. Assist.  
Engineer Surveyor to Lloyd's Register of Shipping.

+ L.M.C. 9-19 F.D.

MACHINERY CERTIFICATE



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