

Received at London Office

Date of writing Report 20th Nov. 1919 When handed in at Local Office 20th Nov. 1919 Port of Kobe
No. in Survey held at Osaka + Imoshima Date, First Survey 25th Apr. 1919 Last Survey 23rd Oct. 1919
Reg. Book. on the Steel Single Screw Steamer "Yonan Maru" (Number of Visits 37) Gross 7154 Tons Net 5179
Master S. Shiraishi Built at Imoshima By whom built The Osaka Iron Works Ltd. When built 1919
Engines made at Osaka By whom made The Osaka Iron Works Ltd. when made 1919
Boilers made at do By whom made do when made 1919
Registered Horse Power Owners Taiyo Kisen Kaishiki Kaisha Port belonging to Shinjima
Nom. Horse Power as per Section 28 550 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Quadruple Expansion No. of Cylinders Four No. of Cranks Four
Dia. of Cylinders 23" x 33" x 47" x 68" Length of Stroke 51" Revs. per minute 80 Dia. of Screw shaft 1 1/2" Material of screw shaft Forged steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight
in the propeller boss yes 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'-4"
Dia. of Tunnel shaft 13.15 Dia. of Crank shaft journals 13.8 Dia. of Crank pin 1'-2 1/4" Size of Crank webs 2'-1 1/2" x 1'-2 1/4" Dia. of thrust shaft under
collars 1'-2 1/2" Dia. of screw 14'-9" Pitch of Screw 18'-6" No. of Blades 1 ✓ State whether moveable yes Total surface 100 sq. ft.
No. of Feed pumps 2 Diameter of ditto 1 Stroke 27" Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 27" Can one be overhauled while the other is at work yes
No. of Donkey Engines 3 Sizes of Pumps Donkey 1 1/2 x 5/2 x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Bilge main 4 1/2 x 3 1/2 Donkey 3 x 8 x 10 1/2 x 21" In Holds, &c. Nos. 1, 2 + 3. 2-3 1/2" each Deep tank
2. 3 1/2" + 2-4 1/2" + One 3" to tunnel Well No. 5 Hold 4-3 1/2" each
No. of Bilge Injections 1 sizes 9 1/2" Connected to condenser, or to circulating pump ✓ 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 yes
Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Both used
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold pipes 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 Voice tubes, Electric pipes How are they protected Wood covering
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
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Engine Room

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Otis Mfg. Co., Lukens Mfg. Co., Am. Spiral Pipe Co., Embury Mfg. Co.
Total Heating Surface of Boilers 8198 sq. ft. Is Forced Draft fitted yes No. and Description of Boilers 3 single ended multitubular
Working Pressure 225 lbs. Tested by hydraulic pressure to 450 lbs. Date of test 1st, 12th, 14th, 1919 No. of Certificate 45013
Can each boiler be worked separately yes Area of fire grate in each boiler 61.8 sq. ft. No. and Description of Safety Valves to
each boiler 2 spring loaded Area of each valve 3" Pressure to which they are adjusted 225 lbs. Are they fitted with cushion gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork 1'-6" Mean dia. of boilers 15'-0" Length 12'-0" Material of shell plates steel
Thickness 1 1/8" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Doub. riv.
long. seams 1 1/2" rivets Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 10 1/8" x 5 1/8" Lap of plates or width of butt straps 1-1 1/2" x 1 1/2" in
Per centages of strength of longitudinal joint rivets 88.7 Working pressure of shell by rules 238.1 Size of manhole in shell 16" x 12"
Size of compensating ring 3'-2" x 2'-10" No. and Description of Furnaces in each boiler 3 Morrison's Material steel Outside diameter 3'-11 1/2"
Length of plain part top ✓ Thickness of plates crown 1 1/8" bottom 1 1/8" Description of longitudinal joint Weld No. of strengthening rings
Working pressure of furnace by the rules 239.8 Combustion chamber plates: Material steel Thickness: Sides 1 1/8" Back 1 1/8" Top 1 1/8" Bottom 7/8"
Pitch of stays to ditto: Sides 8 1/2" x 4 1/2" Back 8 1/2" x 8" Top 8 1/2" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 242
Material of stays steel Area at smallest part 2.1" Area supported by each stay 8 x 11 3/8" Working pressure by rules 240. End plates in steam space:
Material steel Thickness 1 1/8" Pitch of stays 18" x 20" How are stays secured Doub. nuts Working pressure by rules 255 lbs. Material of stays steel
Area at smallest part 8.76" Area supported by each stay 18" x 20" Working pressure by rules 253 lbs. Material of Front plates at bottom steel
Thickness 7/8" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 14 1/4" wide Working pressure of plate by rules 225 lbs.
Diameter of tubes 3" Pitch of tubes 1 1/4" x 1 1/8" Material of tube plates steel Thickness: Front 7/8" Back 7/8" Mean pitch of stays 9 1/8"
Pitch across wide water spaces 13 1/2" x 5/8" Working pressures by rules 294 lbs. Girders to Chamber tops: Material steel Depth and
thickness of girder at centre 9 3/4" x 2" Length as per rule 2'-9 1/8" Distance apart 8 1/2" Number and pitch of stays in each 3" x 8"
Working pressure by rules 280 lbs. Steam dome: description of joint to shell ✓ % of strength of joint
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

W638-00247

IS A DONKEY BOILER FITTED?

No

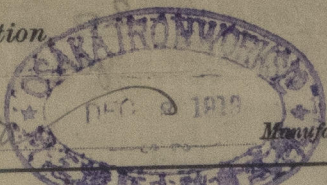
If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

Two Connecting Rods top end bolts + nuts
Two Connecting Rods bottom end " "
Two Main bearing bolts
One Set coupling bolt.
One Set Feed + Bilge pump valves
One Set Piston springs
Quantity of assorted bolts + nuts.
Iron of various sizes
One spare Propeller blades
One spare Propeller shaft.
Set Crank pin + Crosshead brasses
One set of Slide Valve rods.
One set of Ecc. Rod.
Air pump Rod.
Two Safety valve springs

The foregoing is a correct description

G. Young



1919
Dates of Survey: During progress of work in shops - Apr. 25, 29; May 3, 5, 9, 11, 15, 20, 29; June 2, 6, 11, 16, 20, 25; July 9, 12, 25; Aug 8, 13, 21, 22; Sept. 8, 9, 14, 24, 30; Oct. 8, 15, 17 + 23
During erection on board vessel - 2, 5, 7, 12, 19; Sept. 29
Total No. of visits - 37

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " " no

Dates of Examination of principal parts - Cylinders 7-July-1919, Slides July 11 + Aug 2, Coverse 2-8-1-8-1919, Pistons 2+8-Aug, Rods 7-July-1919

Connecting rods 21-5-19, Crank shaft 6-8-19, Thrust shaft 8-8-19, Tunnel shafts 21-6-19, Screw shaft 17-6-19, Propeller 23-9-19

Stern tube 3-9-19, Steam pipes tested 8-10-19, Engine and boiler seatings 7-7-19, Engines holding down bolts 17-10-19

Completion of pumping arrangements 17-10-19, Boilers fired 28-9-19, Engines tried under steam 15-10-19

Completion of fitting sea connections 17-10-19, Stern tube 9-9-19, Screw shaft and propeller 8-10-19

Main boiler safety valves adjusted 14-10-19, Thickness of adjusting washers Lock nuts

Material of Crank shaft Forged steel, Identification Mark on Do. LLOYDS 27-19, 4-8-19, Material of Thrust shaft Forged steel, Identification Mark on Do. LLOYDS 27-19, 4-8-19

Material of Tunnel shafts Forged steel, Identification Marks on Do. LLOYDS 4-7-19, 27-6-19, 15-7-19, 18-7-19, 22-7-19, 9-9-19, Material of Screw shafts Forged steel, Identification Marks on Do. LLOYDS 17-6-19, 17-6-19

Material of Steam Pipes Solid Drawn steel, Test pressure 67 1/2 lbs.

Is an installation fitted for burning oil fuel No, Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with "Eastern Light" (Koh Rpt. 2402)

Is this machinery duplicate of a previous case yes, If so, state name of vessel Yomei maru (Koh Rpt. 2521)

Yolen maru (Koh Rpt. 2569)

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

This machinery has been made & fitted under Special Survey in accordance with the requirements of the Rules and the Material and Workmanship have been found good.

The machinery is eligible in my opinion for the Record of L.M.C. 10-19.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10-19 F.D.

4/7/20. J.S.R.

The amount of Entry Fee ... Yen 30.- : When applied for, Special ... £ 828.- : 20-10-1919

Donkey Boiler Fee ... £ : When received, Travelling Expenses (if any) £ : 5-11-1919

Committee's Minute FRI-FEB.6-1920

Assigned + L.M.C. 10, 19

John Sim + Engineer Surveyor to Lloyd's Register of Shipping.

