

REPORT ON MACHINERY.

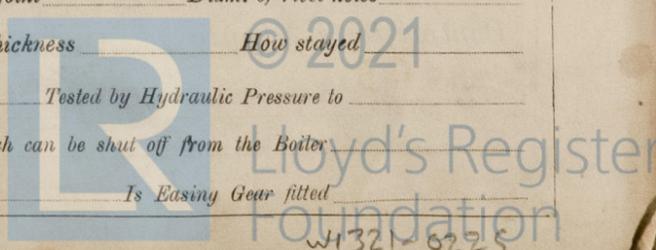
Received at London Office **WED. 12 NOV. 1919**

Date of writing Report Sept 26th 1919 When handed in at Local Office 10 Port of Kobe
 No. in Survey held at Kobe Date, First Survey Apr. 12th Last Survey Sept. 11th 1919
 Reg. Book. on the Steel Single Screw Steamer "Cape Town Maru" (Number of Visits 39) Tons { Gross 5863
 Net 4263
 Master K. Ogyuro Built at Kobe By whom built Kawasaki Dockyard Co., Ltd. When built 1919
 Engines made at Kobe By whom made Kawasaki Dockyard Co., Ltd. when made 1919
 Boilers made at do By whom made do when made 1919
 Registered Horse Power 440 Owners The Kawasaki Kisen Kabushiki Kaisha Part belonging to Kobe
 Nom. Horse Power as per Section 28 440 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: 43 1/2 : 72 Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft 15.41" Material of screw shaft steel
 as fitted 16" 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 1/4"
 Dia. of Tunnel shaft 13.48" Dia. of Crank shaft journals 14.15" 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 4 State whether moveable yes Total surface 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 (with 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"x11"x12" Dup. Weir's Feed 9 1/2 x 7 x 24 two Gen. Serv. 7 1/2 x 5 x 6 dup. No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3 1/2 In Holds, &c. Nos. 1, 3 + 4 Hold each two 3 1/2" 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 of 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
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from up platform of Eng. Room.

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Illinois Stl Co., Carnegie Stl Co., Am. Spiral Pipe Works.
2252x2+1132(Aux. Bln)
 Total Heating Surface of Boilers = 5636 Is Forced Draft fitted yes No. and Description of Boilers Two S. & Aux. S. Co.
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 19-7-19 24-7-19 No. of Certificate No. 1 400 LBS. No. 2 400 LBS.
19-7-19 24-7-19 H.H.A.W.B. S.P.A.W.B.
 Can each boiler be worked separately yes Area of fire grate in each boiler 60 1/2" No. and Description of Safety Valves to each boiler Two Spring loaded Area of each valve 3 3/4 dia. 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 12" Mean dia. of boilers 14' - 6" Length 12' - 0" Material of shell plates Steel
 Thickness 1 3/8" Range of tensile strength 2678 to 32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Ends Double
 long. seams Double riveted Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 9 1/8 + 4 1/16" Lap of plates or width of butt straps 2 1/8 + 1 3/8"
 Per centages of strength of longitudinal joint 95.84 Working pressure of shell by rules 200 lbs. Size of manhole in shell 16" x 12"
 plate 84.28
 Size of compensating ring (1/2 + flange) 1 5/16" No. and Description of Furnaces in each boiler 3 Morrison's suspension Material Steel Outside diameter 48 1/4"
 Length of plain part top 2 1/32" Thickness of plates bottom 2 1/32" Description of longitudinal joint Weld No. of strengthening rings ✓
 Working pressure of furnace by the rules 221 Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 7/8"
 Pitch of stays to ditto: Sides 8 5/8 x 8 1/2" Back 8 1/2 x 9" Top 8 1/2 x 9 3/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203 lbs.
 Material of stays Steel Area at smallest part 2.1" Area supported by each stay 8 1/2 x 9 3/8" Working pressure by rules 230 lbs. End plates in steam space: Material Steel Thickness 1 5/8" Pitch of stays 19 3/4 x 20 1/2" How are stays secured Double nuts Working pressure by rules 201 lbs. Material of stays steel
 Area at smallest part 10" Area supported by each stay 19 3/4 + 20 1/2" Working pressure by rules 260 lbs. Material of Front plates at bottom Steel
 Thickness 1 3/16" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" at wide Water space Working pressure of plate by rules 200 lbs.
 Diameter of tubes 3/4" Pitch of tubes 4 1/16" x 4 5/16" Material of tube plates Steel Thickness: Front 1" Back 1 3/16" Mean pitch of stays 8 3/4"
 Pitch across wide water spaces 13 3/4 + 3/4" doubled Working pressures by rules 210 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 3/4 + 1 3/16 (2) Length as per rule 34 1/2" Distance apart 9 3/8" Number and pitch of stays in each 3 @ 8 1/2"
 Working pressure by rules 220 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 ✓



Water Capac
 Tons.
 126.
 93.
 21, 22, 23, 24
 f Visits 31

IS A DONKEY BOILER FITTED? *Aux. Bln. only* If so, is a report now forwarded? *yes*

SPARE GEAR. State the articles supplied :-

Four main bearing bolts+nuts	Set packing rings + springs each piston.	Centrifugal pump impeller shaft
Two Crank-pin	Set junk ring bolts + nuts	Crosshead + Crankpin brasses
Two Crosshead	One part Crank shaft.	A. B. rod + nut.
Set Coupling	Propeller shaft.	3 safety valve springs Cond.
Set Feed + Bilge pump valves	Four blades + 2 sets studs + nuts	+ Bln. tubes etc. etc.
Assorted bolts + nuts + iron	Slide valve spindle each size	

The foregoing is a correct description,

Kawasaki Dockyard Co

Per *J. Ota Kane* Manufacturer.

Dates of Survey while building

During progress of work in shops	1919	Apr. 12, 14; May: 13, 16, 22; June 10, 13, 16, 17, 18, 19, 23, 24, 27, 30; July 2, 7, 10, 11, 15, 16, 23, 24, 25, 30, + 31
During erection on board vessel		Aug. 1, 5, 6, 20, 21, 23, 30; Sept. 1, 5, 6, 8, 10 + 11.
Total No. of visits		39.

Is the approved plan of main boiler forwarded herewith *No. 5* smallest distance for Naples Maru Rpt. 2587

Dates of Examination of principal parts—Cylinders *water test.* 16-6-19 Slides 21-8-19 Covers 6-8-19 Pistons 6-8-19 Rods 23-8-19

Connecting rods 20-8-19 Crank shaft 25-7-19 Thrust shaft 25-7-19 Tunnel shafts 16-7-19 Screw shaft 6-8-19 Propeller 31-7-19

Stern tube 5-8-19 Steam pipes tested 31-7-19 Engine and boiler seatings 13-8-19 Engines holding down bolts 1-9-19

Completion of pumping arrangements 1-9-19 Boilers fixed 1-9-19 Engines tried under steam overhaul 10-9-19 11-9-19

Completion of fitting sea connections 13-8-19 Stern tube 8-8-19 Screw shaft and propeller 12-8-19

Main boiler safety valves adjusted 6-9-19 Thickness of adjusting washers Locknuts - Caps sealed by Govt Inspr

Material of Crank shaft *Steel* Identification Mark on Do. *LLOYDS 25-7-19 AW R* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYDS 25-7-19 AW R*

Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYDS 16-7-19 AW R* Material of Screw shafts *Steel* Identification Marks on Do. *LLOYDS 16-7-19 AW R*

Material of Steam Pipes *Steel* Test pressure *600 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

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *S.S. War Queen Rpt. No 2009*

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

S.S. War Prince " " 2031
S.S. Naples Maru " " 2587
S.S. Port Said Maru " " 2589
S.S. Karachi Maru " " 2599

The Machinery of this vessel has been made + fitted under Special Survey in accordance with the requirements of the Rules + the Workmanship + materials 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.

J.W.D. 17/11/19 *A.P.R.*

The amount of Entry Fee ... *Yen* : 30.- When applied for, *18th Sept. 1919*

Special ... *£.* : 435.- When received.

Auxiliary Boiler Fee *included* :-

Travelling Expenses (if any) *Yen* : 15.- *22nd Sept. 1919*

Alexander Watt, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE NOV 18 1919 Assigned + L.M.C 9.19 F.D.

