

REPORT ON MACHINERY.

No. 2572

Received at London Office

TUE SEP 3 1919

Date of writing Report 9th Aug 1919 When handed in at Local Office

Port of Kobe

No. in Survey held at Kobe
Reg. Book.Date, First Survey 5th May 1919Last Survey 21st June 1919

on the Steel Single Screw Steamer "Brazil Maru"

Tons { Gross 5859 20
Net 4260 31

Master M. Kaneko Built at Kobe

By whom built Kawasaki Dockyard Co., Ltd. When built 1919

Engines made at Kobe

By whom made The Kawasaki Dockyard Co., Ltd. when made 1919

Boilers made at do

By whom made do when made 1919

Registered Horse Power

Owners The Kawasaki Kisen Kabushiki Kaisha Port belonging to Kobe

Nom. Horse Power as per Section 28 437

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 26: 13 1/2: 7 1/2 Length of Stroke 18 Revs. per minute 70 Dia. of Screw shaft 15 1/4 as per rule 15 1/4 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 yes If the liner is in more than one length are the joints burned yes 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 yes If two liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 5: 5 1/4"

Dia. of Tunnel shaft 13 1/4 as per rule 13 1/4 Dia. of Crank shaft journals 14 1/2 as per rule 14 1/2 Dia. of Crank pin 14 3/4 Size of Crank webs 90 1/2 x 208 Dia. of thrust shaft under + 26 1/2 x 11 pin + journal

collars 1 1/2 Dia. of screw 14: 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" x 11" x 12" Dupl. No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 3 1/2 and One 3 1/2 to tunnel Well In Holds, &c. Nos. 1, 3 + 4 holds each two 3 1/2 No. 2 hold, two 1"

No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump No 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 yes

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 Upper platform of Eng. R.

BOILERS, &c.—(Letter for record 5.) Manufacturers of Steel Illinois North Bros. Benson Bros. Ames Spies

Total Heating Surface of Boilers 5636 Is Forced Draft fitted yes No. and Description of Boilers Two S. & Aux. S. & 2 S. B. & 1 Aux. S. B.

Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 5th + 9th May No. of Certificate LLOYD'S TEST 401 205 A.W. 7/19/19

Can each boiler be worked separately yes Area of fire grate in each boiler 60 1/2 No. and Description of Safety Valves 16

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 21,785 to 32,000 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Ends done. mid. treb.

long. seams 1 7/8" Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 9 1/8" + 4 1/16" Lap of plates or width of butt straps 20 1/8"

Per centages of strength of longitudinal joint rivets 96 plate 84.5 Working pressure of shell by rules 204 lbs. Size of manhole in shell 16 x 12

Size of compensating ring (12" flange) 1 1/2 No. and Description of Furnaces in each boiler 3 Morrison's Material steel Outside diameter 18 1/4"

Length of plain part top 21 1/2" bottom 21 1/2" Description of longitudinal joint Weld Suspension No. of strengthening rings 4

Working pressure of furnace by the rules 221 Combustion chamber plates: Material steel Thickness: Sides 1 1/8" Back 1 1/8" Top 1 1/8" Bottom 1 1/8"

Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 8 1/2 x 9 Top 8 1/2 x 9 1/2 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 1/2 Working pressure by rules 230 lbs. End plates in steam space:

Material steel Thickness 1 1/8" Pitch of stays 19 1/4 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 1/4 x 20 1/2 Working pressure by rules 260 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" + wide Water space Working pressure of plate by rules 200 lbs.

Diameter of tubes 3 1/2" Pitch of tubes 1 1/2" x 1 1/2" Material of tube plates steel Thickness: Front 1" Back 13/16" Mean pitch of stays 8 3/4"

Pitch across wide water spaces 3 1/4" x 3 1/4" Working pressures by rules 210 lbs. Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 10 1/4" x 13/16" doubled 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 Schmidt Date of Approval of Plan Tested by Hydraulic Pressure to 600 lbs

Date of Test 1st May + 8th May 1919 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes

Diameter of Safety Valve 3" Pressure to which each is adjusted 205 lbs. Is Easing Gear fitted No.

006819-006830-0012

IS A DONKEY BOILER FITTED? Aux. Blr. 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
Two Crank pin bolts + nuts Set junk ring bolts + nuts Crosshead + Crankpin brasses
Two Crosshead bolts + nuts One part Crank shaft. A.P. rod + nut. 3 safety
Set coupling bolts + nuts Propeller shaft. valve springs Cond. + Bl
Set Feed + Bilge pump valves Four blades + 2 sets studs + nuts tubes etc. etc.
Assorted bolts + nuts + iron Slide valve spindle each size

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.,

Per J. Ota Kane Secretary. Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 24. 26. 28. April 24. 9. 11. 12. 14. 16. 19. 21. 29. 30
During erection on board vessel - - - May 1. 5. 8. 12. 14. 16. 19. 21. 22. 24. 31. June 6. 9. 16. 19. 21. 1919
Total No. of visits 36

Is the approved plan of main boiler forwarded herewith With Rpt. m. Sps. Glasgow No. 5528

Dates of Examination of principal parts - Cylinders 14/3/19 Slides 11/4/19 Covers 11/4/19 Pistons 5/3/19 Rods 19/5/19
Connecting rods 19/5/19 Crank shaft 2/4/19 Thrust shaft 4/4/19 Tunnel shafts 26/3/19 Screw shaft 19/4/19 Propeller 14/5/19
Stern tube 14/5/19 Steam pipes tested 16/3/19 April 22 + 31 May Engine and boiler seatings 24/5/19 Engines holding down bolts 16/6/19
Completion of pumping arrangements 6/6/19 Boilers fixed 6/6/19 Engines tried under steam (18/6/19) Overhaul 19/6/19
Completion of fitting sea connections 24/5/19 Stern tube 21/5/19 Screw shaft and propeller 24/5/19
Main boiler safety valves adjusted 16/6/19 Thickness of adjusting washers Lead nuts clear S. Blr. F. 7/8: P. Blr. F. 13/16: A.W. B. 7/8
Material of Crank shaft Steel Identification Mark on Do. LLOYDS A.W. 24/3/19: 20/2/19: A.W. 92 Material of Thrust shaft Steel Identification Mark on Do. LLOYDS A.W. 24/3/19: 20/2/19: A.W. 92
Material of Tunnel shafts Steel Identification Marks on Do. LLOYDS A.W. 24/3/19: 20/2/19: A.W. 92 Material of Screw shafts Steel Identification Marks on Do. LLOYDS A.W. 24/3/19: 20/2/19: A.W. 92
Material of Steam Pipes Steel Test pressure 600 lbs Span 19.4.19 A.W.

Is an installation fitted for burning oil fuel 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 War Queen Rpt No. 2009

General Remarks (State quality of workmanship, opinions as to class, &c.) War Prince 2031 Hc
Margno Man 2528
Singapore 2530
Chloe 2571

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

The vessel is eligible in our opinion for the notation + LMC 6.1919

It is submitted that this vessel is eligible for THE RECORD + LMC 6.19. F.D.

JWD. 25/9/19. JPR

The amount of Entry Fee ... Yen : 30 : When applied for.
Special ... Yen 735 : 25 June 1919
Donkey Boiler Fee ... : : When received.
Travelling Expenses (if any) Yen : 15 : 26 June 1919
TUE 7-OCT. 1919

A. L. Jones & Allatt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned + L.M.C. 6.19
F.D.