

REPORT ON MACHINERY.

No. 2908

FRI. AUG. 16 1920

Received at London Office

of writing Report 29th June 1920 When handed in at Local Office 10 Port of Kobe
 in Survey held at Kobe Date, First Survey 18th Oct 1919 Last Survey 19th June 1920
 Book. (Number of Visits 62)
 on the STEEL SINGLE SCREW STEAMER "INDIA MARU" Tons { Gross 5872.89
 Net 4253.84
 Master K. Ogura Built at Kobe By whom built Kawasaki Dockyard Co. Ltd When built 1920
 Lines made at Kobe By whom made Kawasaki Dockyard Co. Ltd when made 1920
 Masts made at do By whom made do when made 1920
 Registered Horse Power 440 Owners The Kawasaki Kisen Kaisha Port belonging to Kobe
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

FINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks 3
 of Cylinders 26": 43½": 72" Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft 15.41" as per rule 15.41" as fitted 16" Material of screw shaft Steel
 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
 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
 are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5'-5¼"
 of Tunnel shaft 13.48 as per rule 13.54 as fitted 13¾" Dia. of Crank shaft journals 14.15 as per rule 14.21 as fitted 14¾" Dia. of Crank pin 14¾" Size of Crank webs 9½" x 20½" Dia. of thrust shaft under
 pins 14¾" Dia. of screw 17'-6" Pitch of Screw 19'-0" mean No. of Blades 4 State whether moveable yes Total surface 100 sq. ft.
 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)
 of Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes
 of Donkey Engines Three Sizes of Pumps Weir's Feed 9½" x 7" x 24" two No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Three 3½" Ballast 10" x 11 x 12 dupl. No. 1, 3 + 4 Hold each two 3½" No. 2 Hold two 4"
 One 3½" to Tunnel Well
 of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump in pp. Is a separate Donkey Suction fitted in Engine room & size yes 3½"
 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
 all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Larger Valves; Smaller Cocks
 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
 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
 at pipes are carried through the bunkers None How are they protected ✓
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes
 tests of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller

the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Upper platform of Eng. Rm.
 BOLLERS, &c.—(Letter for record S.) Manufacturers of Steel Illinois Stl. Co; Carnegie Stl. Co; Am. Spiral Co.
2252 x 2 + 1132 (Aux. Blr) Midvale Stl. Co. North Brothers Co.
 Heating Surface of Boilers 5636 Is Forced Draft fitted yes No. and Description of Boilers Two 5' 6" + Auscy. 5' 6"
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 30-4-20 No. of Certificate 30-4-20 No. 1 61053 757 No. 2 WT. 400 483
 each boiler be worked separately yes Area of fire grate in each boiler 60½' No. and Description of Safety Valves to
 boiler Two Spring loaded Area of each valve 3¾" 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 1½" Range of tensile strength 26,786 to 32,000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Ends double
 g. seams Double rivets Diameter of rivet holes in long. seams 1⅜" Pitch of rivets 8¾" + 4¾" Lap of plates or width of butt straps 19½" x 1¼"
 percentages of strength of longitudinal joint 95.84 Working pressure of shell by rules 201 lbs. Size of manhole in shell 16" x 12"
 of compensating ring (1½" + flange) 1⅜" No. and Description of Furnaces in each boiler 3 Morrison's Material Steel Outside diameter 48¼"
 length of plain part top ✓ Thickness of plates bottom 21/32 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 11/16" Back 11/16" Top 11/16" Bottom 7/8"
 of stays to ditto: Sides 8½" x 8½" Back 8½" x 9" Top 8½" x 9½" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203 lbs.
 Material of stays Steel Diameter at smallest part 2.1" Area supported by each stay 8½" x 9½" Working pressure by rules 230 lbs. End plates in steam space:
 Material Steel Thickness 1½" Pitch of stays 19¾" x 20½" How are stays secured Double nuts + small washers Working pressure by rules 202 lbs. Material of stays Steel
 at smallest part 10" Area supported by each stay 19¾" x 20½" 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 13½" at wide Working pressure of plate by rules 232 lbs.
 diameter of tubes 3¼" Pitch of tubes 4⅞" x 4⅞" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 8¾"
 across wide water spaces 13¾" x 5/8" Working pressures by rules 240 lbs. Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10¾" x 13/16" (2) Length as per rule 34½" Distance apart 9¾" Number and pitch of stays in each 3 @ 8½"
 working pressure by rules 220 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
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 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

010526 - 010536 - 0126

AUXILIARY
IS A ~~DONKEY~~ BOILER FITTED?

yes

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. | Shaft + nut. |
| Two Crosshead bolts + nuts. | Set of packing for each piston rods + valve rods. | A.P. rod + nut. |
| Set coupling bolts + nuts. | Propeller Shaft with nut. | 3 Safety valve springs. |
| Set Feed + Bilge pump valves. | 1 Feed check valve + seat. | Cond. Blr. tubes etc. |
| Assorted bolts nuts + iron. | Slide valve spindle each size | 1 Set A.P. Head Valves. |

The foregoing is a correct description,

Kawasaki Dockyard Co. Ltd.

Per

Manufacturer.

Secretary.

| | | |
|--------------------------------|--------------------------------------|--|
| Dates of Survey while building | During progress of work in shops - - | 1919. Oct 12, 28; Nov 7, 29; Dec 8, 11, 13, 17, 23, 27; 1920. Jan 8, 14, 19, 22, 26, 27, 28, 29; Feb 3, 7, 9, 28; Mar 2, |
| | During erection on board vessel - - | Mar 6, 8, 10, 12, 13, 15, 16, 22, 25, 26; Apr 1, 2, 5, 7, 9, 12, 15, 19, 20, 21, 23, 24, 26, 27, 30; May 3, 5, 6, 7, 13, 18, 20, 26; |
| | Total No. of visits | June 5, 6, 9, 10, 18. 62. |

Is the approved plan of main boiler forwarded herewith? yes

Dates of Examination of principal parts - Cylinders 26-4-20 Slides 20-5-20 Covers 6-5-20 Pistons 6-5-20 Rods 18-5-20

Connecting rods 26-4-20 Crank shaft 6-4-20 Thrust shaft 6-4-20 Tunnel shafts 9-4-20 Screw shaft 22-3-20 Propeller 2-4-20

Stern tube 7-4-20 Steam pipes tested 26-3-20 Engine and boiler seatings 7-4-20 Engines holding down bolts 26-5-20

Completion of pumping arrangements 9-6-20 Boilers fired 26-5-20 Engines tried under steam 9-6-20 overhaul 10-6-20

Main boiler safety valves adjusted 5-6-20 Thickness of adjusting washers Locknuts (Sealed by Corvet Inspector)

Material of Crank shaft 7 Steel Identification Mark on Do. LLOYDS 6-4-20 AW R Material of Thrust shaft 7 Steel Identification Mark on Do. P. 823 LLOYDS 6-4-20 AW R

Material of Tunnel shafts " " Identification Marks on Do. Material of Screw shafts " " Identification Marks on Do. PA 705 LLOYDS 22-3-20 AW R

Material of Steam Pipes Solid Drawn Steel Test pressure 600 lbs sq in working T.S. PA 630 LLOYDS 5-6-20 AW R

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

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 (Kite Rpt No 2009)

General Remarks (State quality of workmanship, opinions as to class, &c.) S/S WAR PRINCE (" " " 2081)

Of the Tunnel Shafts, three were forged and tested at Oshima Steelworks, Tokyo. The test certificate given by Yokohama Surveyors was checked and found in order. Test marks are K.I. 8; K.I. 9; & K.I. 10. S/S CHINA MARU (" " " 2803)

The Machinery has been made and fitted under Special Survey in accordance with the requirements of the Rules and the materials & workmanship are good. S/S BELGIUM MARU (" " " 2836)

The machinery is eligible, it is submitted, for the notation + LMC 6.20. S/S OHIO MARU (" " " 2859)

It is submitted that this vessel is eligible for THE RECORD + LMC 6.20 F.D.

R.M. 9/8/20

The amount of Entry Fee ... £ 30.00

Special ... £ 735.00

Donkey Boiler Fee ... Dues

Travelling Expenses (if any) £ 10.00

Committee's Minute

Assigned

FRI. AUG. 13 1920

+ LMC 6.20 F.D.

A. Watt

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

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