

REPORT ON MACHINERY.

No. 2223.

Date of writing Report *April 7th 1918* When handed in at Local Office *Apr 7 1918* Port of *Kobe*
 No. in Survey held at *Kobe and Harima* Date, First Survey *July 25th 1917* Last Survey *March 25th 1918*
 Reg. Book. *on the Blue Single Screw Steamer "War Amazon"* (Number of Visits *Continuous attendance* while building. *During erection on Gross* *board. 9.* *3164.89.* Tons *Net 1891.04.* When built *1918*
 Master *A. I. Rawley* Built at *Harima* By whom built *Harima Dockyard Comp'y*
 Engines made at *Kobe* By whom made *The Kobe Steel Works Ltd* when made *1918*
 Boilers made at *One at Kobe. One at Harima* By whom made *The Harima Dockyard Company.* when made *1918*
 Registered Horse Power *290* Owners *Butterfield and Swire* Port belonging to *Is Electric Light fitted* *Yes.*
 Nom. Horse Power as per Section 28 *290* Is Refrigerating Machinery fitted for cargo purposes *No.*

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *Three* No. of Cranks *Three*
 Dia. of Cylinders *22, 37, 61* Length of Stroke *42* Revs. per minute *73* Dia. of Screw shaft *as per rule 12.97* Material of *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 *4'-10"*
 Dia. of Tunnel shaft *as per rule 11.60* Dia. of Crank shaft journals *as per rule 12.18* Dia. of Crank pin *12 1/2* Size of Crank webs *7 1/2 x 24* Dia. of thrust shaft under
 collars *12 1/2* Dia. of screw *5-9* Pitch of Screw *16'-6"* No. of Blades *4* State whether moveable *No* Total surface *74 sq.*
 No. of Feed pumps *2* Diameter of ditto *4* Stroke *22* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *2* Diameter of ditto *4* Stroke *22* Can one be overhauled while the other is at work *Yes*
 No. of Donkey Engines *3* Sizes of Pumps *Ballast 9" x 10" GS. D. 7" x 5" x 7" Wena (Donkey) 10 1/2" x 8" x 24"* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *2 @ 3"* In Holds, &c. *No 1 hold. 2 @ 3" (1 Port, 1 star) No 2 hold. 2 @ 3"*
 No 3 hold. *2 @ 3"* Tunnel well. *1 @ 3"*
 No. of Bilge Injections *1* size *6"* Connected to condenser, or to circulating pump *Yes* 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 *✓*
 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 *✓* 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 *ER. Top. Plat form*
 BOILERS, &c.—(Letter for record) Manufacturers of Steel *Alan Wood Iron and Steel Coy.*

Total Heating Surface of Boilers *3704 sq.* Is Forced Draft fitted *Yes* No. and Description of Boilers *Two Single Ended*
 Working Pressure *200 lbs.* Tested by hydraulic pressure to *400 lbs* Date of test *Jan 11 & 17/18* No. of Certificate *LLOYD'S TEST. 400 LBS. Re. 3. 11. 18. LLOYD'S TEST. 400 LBS. Re. 3. 7. 18.*
 Can each boiler be worked separately *Yes* Area of fire grate in each boiler *47* No. and Description of Safety Valves to
 each boiler *Two Spring loaded* Area of each valve *9.62* 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 *✓* Mean dia. of boilers *13'-7 1/4"* Length *11'-6"* Material of shell plates *Steel*
 Thickness *1 1/4"* Range of tensile strength *28 to 32 TONS* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *DRL*
 long. seams *TR DBS* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *8 5/8"* Lap of plates or width of butt straps *18 3/8"*
 Per centages of strength of longitudinal joint *85.00* Working pressure of shell by rules *206 lbs.* Size of manhole in shell *12" x 16"*
 Size of compensating ring *Flanged* No. and Description of Furnaces in each boiler *3 Deightons* Material *Steel* Outside diameter *3'-4 1/2"*
 Length of plain part *top 1' bottom 1'* Thickness of plates *crown 9/16" bottom 1/2"* Description of longitudinal joint *Weld* No. of strengthening rings *✓*
 Working pressure of furnace by the rules *217-6* Combustion chamber plates: Material *Steel* Thickness: Sides *25/32* Back *23/32* Top *23/32* Bottom *25/32*
 Pitch of stays to ditto: Sides *8" x 10"* Back *7 1/4" x 8 1/2"* Top *8" x 10"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *200 lbs.*
 Material of stays *Steel* Area at smallest part *173 x 2.03* Area supported by each stay *8 x 10 1/2* Working pressure by rules *209* End plates in steam space:
 Material *Steel* Thickness *1 1/8"* Pitch of stays *16 x 18 1/4"* How are stays secured *DN riveted W* Working pressure by rules *210* Material of stays *Steel*
 Area at smallest part *6.33* Area supported by each stay *30.3* Working pressure by rules *217* Material of Front plates at bottom *Steel*
 Thickness *29/32* Material of Lower back plate *Steel* Thickness *27/32* Greatest pitch of stays *14* Working pressure of plate by rules *200 lbs.*
 Diameter of tubes *3"* Pitch of tubes *4 1/2" x 4 1/4"* Material of tube plates *Steel* Thickness: Front *27/32* Back *7/8"* Mean pitch of stays *8 3/4"*
 Pitch across wide water spaces *14* Working pressures by rules *270* Girders to Chamber tops: Material *Steel* Depth and
 thickness of girder at centre *11 1/2" x 1 7/8"* Length as per rule *34.468* Distance apart *10 1/2" x 8 1/4"* Number and pitch of stays in each *3 @ 8"*
 Working pressure by rules *240* Steam dome: description of joint to shell *✓* % of strength of joint

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 *✓*

W1122-0136

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

- Two Crosshead bolts and nuts.
- Two Crank pin bolts and nuts.
- Two main bearing bolts and nuts.
- One set of Coupling bolts and nuts.
- One set of Feed pump valves.
- One set of Belp pump valves.
- One main check valve seat.
- One safety valve spring.
- Assorted bolts and nuts.
- Iron of various sizes.

The foregoing is a correct description,

M. Kimura, Superintendent Engineer, Kobe Steel Works, Manufacturer.

Dates of Survey while building { During progress of work in shops -- July 25th - December 12th Kobe Steel Works.
During erection on board vessel -- Jan'y 12. 17. Feb. 4. 14. 16. 20. 27. March 24th 25th.
Total No. of visits Continuous attendance at Kobe Steel Works the approved plan of main boiler forwarded herewith Yes.
During erection in vessel. 9. visits.

Dates of Examination of principal parts—Cylinders Sept 24. Slides Sept 24. Covers Sept 24. Pistons Oct 6. Rods Oct 6.
Connecting rods Oct 6. Crank shaft Thrust shaft Nov 10. Tunnel shafts Nov 10. Screw shaft Nov 10. Propeller Nov 10.
Stern tube Nov 10. Steam pipes tested Feb 16. Engine and boiler seatings Jan'y 12. Engines holding down bolts Jan'y 17.
Completion of pumping arrangements Feb 25. Boilers fired Feb. 4. Engines tried under steam Feb 27.
Completion of fitting sea connections Jan'y 12. Stern tube Jan'y 12. Screw shaft and propeller Jan'y 12.
Main boiler safety valves adjusted Feb 27. Thickness of adjusting washers Lock nuts.
Material of Crank shaft Steel. Identification Mark on Do. Material of Thrust shaft Steel. Identification Mark on Do.
Material of Tunnel shafts Steel. Identification Marks on Do. Material of Screw shafts Steel. Identification Marks on Do.
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. If so, state name of vessel.

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

The Machinery has been made and fitted under special survey in accordance with the requirements of the Rules and the materials and workmanship have been found good.
In my opinion the machinery is eligible for the record of + L M C. 3. 18.

It is submitted that this vessel is eligible for THE RECORD + L M C. 3. 18. F.D.

Handwritten signatures and dates

R. Batcher
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee *Yens. 20. : 00. :* When applied for,
Special ... *Yens 517. : 50. :* 22nd Mar 1918
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 6th May 1918

Committee's Minute TUE 20 AUG. 1918
Assigned + L M C. 3. 18
F.D.

