

REPORT ON MACHINERY.

No. 2261.

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No. in Survey held at Uraga Port of YokohamaReg. Book. Date, First Survey 24. May 1916 Last Survey 29. April 1917on the Steel Screw Steamer "Shirasei Maru" (Number of Visits 26)Master Built at Uraga By whom built Uraga Dock Co. Ltd Tons Gross 4723.69 Net 3417Engines made at Uraga By whom made Uraga Dock Co. Ltd when made 1917Boilers made at do By whom made do when made 1917Registered Horse Power Owners Kishimoto Kusen Kaisha Ltd belonging to KishinomiyaNom. Horse Power as per Section 28 378 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yesENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3Dia. of Cylinders 24 1/4", 40 1/2", 67" Length of Stroke 48 Revs. per minute 85 Dia. of Screw shaft as per rule 13.9" Material of SteelIs 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 tightthe propeller boss yes If the liner is in more than one length are the joints burned no If the liner does not fit tightly at the partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If twoliners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 61"Dia. of Tunnel shaft as per rule 12.15" Dia. of Crank shaft journals as per rule 12.76" Dia. of Crank pin 13 1/4" Size of Crank webs 23" x 8 3/4" Dia. of thrust shaft undercollars 13 1/4" Dia. of screw 16.9" Pitch of Screw 18.0" No. of Blades 4 State whether moveable yes Total surface 82.2 sq. ft.No. of Feed pumps 2 Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yesNo. of Bilge pumps 2 Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yesNo. of Donkey Engines 4 Sizes of Pumps 1-8. donkey 7 1/2" x 6" x 10" No. and size of Suctions connected to both Bilge and Donkey pumpsin Engine Room 3-3 1/2" 1-8. pump 8 1/2" x 10 1/2" x 16" In Holds, &c. Nº 1 hold. 2-2 3/4", Nº 2 holdNo. of Bilge Injections 1 sizes 7 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 noneAre all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks BothAre 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 aboveAre 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 yesThat pipes are carried through the bunkers none How are they protected yesAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesIs the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from E.R. top platformMILERS, &c.—(Letter for record S.) Manufacturers of Steel Lanarkshire & BeardmoreTotal Heating Surface of Boilers 6382 sq. ft. Is Forced Draft fitted no No. and Description of Boilers 3. MultitubularWorking Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 2.8.17 No. of Certificate U. 131.Can each boiler be worked separately yes Area of fire grate in each boiler 60 sq. ft. No. and Description of Safety Valves toeach boiler 2 Area of each valve 8.29 sq. ft. Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 12 1/2" Mean dia. of boilers 13.9" Length 10'-10" Material of shell plates SteelThickness 1 5/16" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D. rivLong. seams T.R.I.B.S. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 3/4" Lap of plates width of butt straps 18 1/2"Percentages of strength of longitudinal joint rivets 88.9 plate 85.7 Working pressure of shell by rules 194 Size of manhole in shell 16" x 12"Use of compensating ring 33" x 29" No. and Description of Furnaces in each boiler 3. Ironison Material Steel Outside diameter 3'-8 1/2"Length of plain part top 9 1/16" bottom 9 1/16" Description of longitudinal joint weld No. of strengthening rings noneWorking pressure of furnace by the rules 198 Combustion chamber plates: Material S. Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"Pitch of stays to ditto: Sides 9" x 7 3/4" Back 8 3/4" x 7 3/4" Top 8 3/4" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 192Material of stays S. Area at smallest part 1.79 sq. ft. Area supported by each stay 67.8 sq. ft. Working pressure by rules 192 End plates in steam space:Material S. Thickness 1" Pitch of stay 16 1/2" x 14 1/2" How are stays secured D. nuts Working pressure by rules 190 Material of stays S.Area at smallest part 4.37 sq. ft. Area supported by each stay 233 sq. ft. Working pressure by rules 190 Material of Front plates at bottom S.Thickness 1 5/16" Material of Lower back plate S. Thickness 7/8" Greatest pitch of stays 13.5" x 7.75" Working pressure of plate by rules 273Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" Material of tube plates S. Thickness: Front 1 5/16" Back 3/4" Mean pitch of stays 8 3/4"Pitch across wide water spaces 13 1/2" Working pressures by rules 197 Girders to Chamber tops: Material S. Depth andThickness of girder at centre 7 1/2" x 1 1/2" Length as per rule 2'-1 5/8" Distance apart 8" Number and pitch of stays in each 2-8 3/4"Working pressure by rules 227 Steam dome: description of joint to shell none % of strength of joint yesDiameter yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yesPitch of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yesSUPERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yesDate of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yesDiameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

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IS A DONKEY BOILER FITTED? *no* ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— 2 connecting rod bottom end bolts, 4 top end bolts, 1 set coupling bolts, 1 set main bearing bolts, 1 set feed & bilge pump valves, 1 set piston springs, 3 sets top end brasses, one bottom end, 2 eccentric rods 3 valve spindles, one circulating pump impeller, & shape for same, one air pump rod. bolts & nuts assorted etc ✓

The foregoing is a correct description,

Y. K. Amimura Uraga Dock Manufacturer.

Dates of Survey while building { During progress of work in shops -- *May 24. Sept 21. Nov 22. Dec 2. 5. 8. 13. 26. 29. Jan 13. 20. Feb 8. 16. 22. 23. 28. March 2.*
During erection on board vessel -- *March 15. 21. 30. April 14. 19. 27. 28. 29.*
Total No. of visits *26*

Is the approved plan of main boiler forwarded herewith *no* ✓

Dates of Examination of principal parts—Cylinders *11.4.17* Slides *18.4.17* Covers *11.4.17* Pistons *18.4.17* Rods *18.4.17*
Connecting rods *7.4.17* Crank shaft *15.4.17* Thrust shaft *27.4.17* Tunnel shafts *27.4.17* Screw shaft *8.4.17* Propeller *8.4.17*
Stern tube *21.4.17* Steam pipes tested *6.4.17* Engine and boiler seatings *21.4.17* Engines holding down bolts *21.4.17*
Completion of pumping arrangements *14.4.17* Boilers fixed *21.4.17* Engines tried under steam *28.4.17*
Completion of fitting sea connections *14.4.17* Stern tube *14.4.17* Screw shaft and propeller *14.4.17*
Main boiler safety valves adjusted *19.4.17* Thickness of adjusting washers *P. for 2 1/4 A 2 1/4. Start for 19 1/2 A 3 1/2 forward to P 3/8 S 3/8*
Material of Crank shaft *Steel* Identification Mark on Do. *U.131.J.S.C.* Material of Thrust shaft *Steel* Identification Mark on Do. *U.131.J.S.C.*
Material of Tunnel shafts *Steel* Identification Marks on Do. *U.131.J.S.C.* Material of Screw shafts *Steel* Identification Marks on Do. *U.131.J.S.C.*
Material of Steam Pipes *Copper* ✓ Test pressure *360 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 of this vessel has been built under special survey the materials and workmanship are good, and eligible in my opinion for records + L.M.C. 4.17.*

(The plans are retained for duplicate vessels) *APR*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 4.17.

The amount of Entry Fee ... *£ 30.00* When applied for,
Special ... *£ 584.00* *29.4.17*
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : *4.5.17*

Committee's Minute

Assigned

MACHINERY CERTIFICATE
WRITTEN.



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