

Rpt. 4.

REPORT ON MACHINERY.

No. 2530

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of KobeNo. in Survey held at
Reg. Book.OsakaDate, First Survey 7 Nov. 1918 Last Survey 23 June 1919(Number of Visits 49)Tons { Gross 7740 22/100
Net 4823 21/100on the Twin Screw Steel Steamer "Amazon Maru"Master A. Kobayashi Built at Osaka By whom built The Osaka Iron Works Ltd. When built 1919Engines made at Osaka By whom made The Osaka Iron Works Ltd. when made 1919Boilers made at do By whom made do when made doRegistered Horse Power Owners The Osaka Shosen Kaisha Port belonging to OsakaNom. Horse Power as per Section 28 655 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yesENGINES, &c.—Description of Engines Triple Expansion Twin Screws No. of Cylinders 3 each Eng. No. of Cranks 3 eachDia. of Cylinders 21 1/2 : 35 : 58 Length of Stroke 18" Revs. per minute 75 Dia. of Screw shaft 13 1/2 as per rule 13 1/2 Material of steel
as fitted 13 3/4 screw shaftIs 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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fits tightly If twoliners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 1' : 9"Dia. of Tunnel shaft 11.92 as per rule 12.52 Dia. of Crank shaft journals 12 3/4 as fitted 12 3/4 Dia. of Crank pin 12 3/4 Size of Crank webs 8 1/2 x 17 1/2 Dia. of thrust shaft undercollars 12 3/4 Dia. of screw 15 : 9 Pitch of Screw 18 : 6 mean No. of Blades 1 State whether moveable yes Total surface 48 each serv.No. of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 21" Can one be overhauled while the other is at work yesNo. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 21" Can one be overhauled while the other is at work yesNo. of Donkey Engines Three Sizes of Pumps Bal. 9 1/2 x 12 x 10 Dupl. Gen. Serv. 4 1/2 x 5 1/2 x 6 Dupl. Small 6 x 4 x 6 Dupl. No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room Three 3 1/2 } In Holds, &c. Two 3 1/2 in each hold.No. of Bilge Injections 2 sizes 4 1/2 Connected to condenser, or to circulating pump in p. Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2Are 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 Larger Valves: Smaller CocksAre 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 yesWhat 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 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 upper platform in Eng. R.BOILERS, &c.—(Letter for record S) Manufacturers of Steel Smith Durham & Co. Scottish Tube Co. John Marshall & Co. 3SB & 1Aux 3BTotal Heating Surface of Boilers 9332 Is Forced Draft fitted yes No. and Description of Boilers Three 5. 6. + One Aux. 3. 6.Working Pressure 200 lbs. Tested by hydraulic pressure to 100 lbs. Date of test 4 Nov 1919 No. of Certificate LLOYD'S TEST 400 LBS. 4/3/19 & 25/3/19 RCan each boiler be worked separately yes Area of fire grate in each boiler 61.8 No. and Description of Safety Valves toeach boiler Two Spring loaded Area of each valve 3" dia Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 15' : 0" Length 12' : 0" Material of shell plates SteelThickness 1 1/2 Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double riv.long. seams Double riv. Straps Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 9 3/4 + 1 1/8 Length of plates or width of butt straps 21 1/2 x 1 1/2 in.Per centages of strength of longitudinal joint 91.9 Working pressure of shell by rules 203 lbs. Size of manhole in shell 12" x 16"Size of compensating ring 31" x 38" x 1 1/2 No. and Description of Furnaces in each boiler 3 Heighton Material Steel Outside diameter 47 1/2Length of plain part top Thickness of plates crown 5/8 Description of longitudinal joint Weld No. of strengthening rings ✓Working pressure of furnace by the rules 213 lbs. Combustion chamber plates: Material Steel Thickness: Sides 21/32 Back 21/32 Top 21/32 Bottom 7/8Pitch of stays to ditto: Sides 8 1/4 x 8 1/2 Back 8 1/4 x 8 3/4 Top 8 x 9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 206 lbs.Material of stays Steel Area at smallest part 1.49 Area supported by each stay 72 Working pressure by rules 223 lbs. End plates in steam space:Material Steel Thickness 1 3/4 Pitch of stays 18" x 20 How are stays secured Double nuts 2 x 13/16 washers Working pressure by rules 215 lbs. Material of stays SteelArea at smallest part 8.29 Area supported by each stay 18" x 20 Working pressure by rules 215 lbs. Material of Front plates at bottom SteelThickness 13/16 Material of Lower back plate Steel Thickness 3/4 Greatest pitch of stays 1 1/4 at wide spaced stays 5/8 doubling Working pressure of plate by rules 200 lbs.Diameter of tubes 3 1/4 Pitch of tubes 1 3/8 x 1 1/2 Material of tube plates Steel Thickness: Front 13/16 Back 13/16 Mean pitch of stays 10 3/4Pitch across wide water spaces 1 1/2 doubled Working pressures by rules 200 lbs. Girders to Chamber tops: Material Steel Depth andthickness of girder at centre 10 1/2 x 7 1/8 (two) Length as per rule 31 1/2 Distance apart 9 Number and pitch of stays in each 3 @ 8Working pressure by rules 246 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. Yemura & Masuda modification of Type Schmidt Date of Approval of Plan 29 May & 4 June 1919 Tested by Hydraulic Pressure to 600 lbsDate of Test 29 May & 4 June 1919 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yesDiameter of Safety Valve 3" Pressure to which each is adjusted 205 lbs Is Easing Gear fitted NoLloyd's Register
Foundation

FRI-SEP 5

Safety valve Springs ✓
Piston rings + Springs ✓
etc.

- Two Crank pin bolts + nuts ✓
- Two Crosshead bolts + nuts ✓
- Set coupling bolts + nuts ✓
- Two main bearing bolts + nuts ✓
- Punk ring bolts ✓
- Assorted bolts + nuts ✓
- Assorted Sheet Steel ✓

L. Yennick

ROSAPATRONWORKS
JAN 18 1919
13.25. Dec. 17. 19. 2

Dates of Survey while building	During progress of work in shops - -		During erection on board vessel - -		Total No. of visits	Is the approved plan of main boiler forwarded herewith
	and					
	Nov. 7. 9. 13. 25.	Dec. 17. 19. 23. 28. 30. 1918.	Jan. 11. 18. 22. 23. 24. 25. 30. 31.			
	Feb. 1. 3. 8. 14. 17. 18. 20. 24. 27.	Mar. 1. 4. 5. 10. 12. 19. 25.	April 2. 11. 23.			
	49.	May 2. 5. 10. 14. 16. 21. 23. 29.	Is the approved plan of main boiler forwarded herewith		Yes	
		June 2. 4. 9. 16. 23. 1919.	"	"	"	"
			"	"	"	"
			"	"	"	"
			"	"	"	"

Dates of Examination of principal parts—Cylinders 14/5/19 Slides 21/5/19 Covers 14/5/19 Pistons 10/5/19 Rods 2/5/10

Connecting rods 23/4/19 Crank shaft 2/4/19 Thrust shaft 30/12/18 Tunnel shafts 17/2/19 & Screw shaft 31/1/19 Propeller 10/5/19

Stern tube 2nd May '19 Steam pipes tested 21/5/19: 9/6/19 Engine and boiler seatings 16/5/19 Engines holding down bolts 9/6/19

Completion of pumping arrangements 16/6/19 Boilers fixed 4/6/19 Engines tried under steam 16/6/19 + 21/6

Completion of fitting sea connections 21/5/19 Stern tube 21/5/19 Screw shaft and propeller 21/5/19 or 18 June 1919

Main boiler safety valves adjusted 16/6/19 Thickness of adjusting washers Locknuts, Cleats

Material of Crank shaft Steel Identification Mark on Do. 24497193/1 Material of Thrust shaft Steel Identification Mark on Do. 30131

Material of Tunnel shafts Steel Identification Marks on Do. None Material of Screw shafts Steel Identification Marks on Do. None

Material of Steam Pipes Steel
Test pressure 600 lbs

Is an installation fitted for burning oil fuel ☒ Is the flash point of the oil to be used over 150°F. ☐ LINE R F
2.6

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 "Alps Maru" "Andes Maru"

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

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

The vessel is in my opinion eligible for the notation + L.M.C 6.19

After the water test of the starboard L.P. Cylinder cracks were found at the ribs of the steam port, the cracks being 3 to 4 ins. long. These stays were fitted by prolonging cylinder cover studs to the passage wall. After the trial the cracks were found not to have extended but other cracks were found at ribs of Exhaust passage. The vessel made a trip to Japanese ports & a new cylinder has now (24th July) been fitted.

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

The amount of Entry Fee	...	Rs 30	:	} When applied for 26 th June 1919
Special	...	Rs 9.22	:	
Donkey Boiler Fee	...	Rs :	:	
Travelling Expenses (if any)	...	Rs 10	:	
				When received, 7 th July 1919

JWR. 9/9/19
 A. L. Jones Y. Jo. assist
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

MACHINERY CERTIFICATE
WRITTEN.

TUE. SEP 9 - 1975

F. D.

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