

Rpt. 4.

REPORT ON MACHINERY.

No. 4581

Received at London Office

Date of writing Report APR. 23rd 1923 When handed in at Local Office APR. 23rd 1923 Port of PHILADELPHIANo. in Survey held at PHILADELPHIA
Reg. Book.Date, First Survey Nov. 3rd 1922 Last Survey APR. 23rd 192352448, on the STEEL SCREW STEAMER "ALAMEDA"(Number of Visits 26.)Tons { Gross 7222
Net 5362Master ☒ Built at PHILADELPHIA By whom built THE WM. CRAMP & SONS SKEB. CO. When built 1919Engines made at PHILADELPHIA By whom made Do. when made 1919Boilers made at Do. By whom made Do. when made 1919

Registered Horse Power

Owners MANAGERS OF THE WM. CRAMP & SONS SKEB. CO. Port belonging to PHILADELPHIA
CAROLD & CRAIG. MRS. OWENSONNom. Horse Power as per Section 28 565 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted YES.ENGINES, &c.—Description of Engines TRIPLE EXPANSIONNo. of Cylinders 3 No. of Cranks 3Dia. of Cylinders 27" 45 1/2" 76" Length of Stroke 51" Revs. per minute 78 Dia. of Screw shaft as per rule 15.3" Material of screw shaft STEEL
as fitted 15.5"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 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 ✓ If twoliners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5' 9"Dia. of Tunnel shaft as per rule 13.96" Dia. of Crank shaft journals as per rule 14.65" Dia. of Crank pin 15 1/2" Size of Crank webs 10 1/2" x 24" Dia. of thrust shaft undercollars 15" Dia. of screw 17.9" Pitch of Screw 16'-0" No. of Blades 4 State whether moveable YES. Total surface 100.4 sqNo. of Feed pumps TWO Diameter of ditto 12 x 8" Stroke 24" Can one be overhauled while the other is at work YES.No. of Bilge pumps TWO Diameter of ditto 4 1/2" Stroke 25 1/2" Can one be overhauled while the other is at work YES.No. of Donkey Engines SEE OVER. No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 4 BOILER ROOMS, 4-3 1/2" 2-3" 1 SPECIAL 4" In Holds, &c. 2-3 1/2" IN FORD; HOLD. 1-2 1/2" IN FORD; PUMP ROOM. 1-3" IN CHAIN LOCKER. 2-3 1/2" IN AFTER PUMP ROOM. 1-3" IN FORE PEAK TANK.No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump YES. Is a separate Donkey Suction fitted in Engine room & size YES. 4"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 VALVES.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 COFFERDAM SUCTION. How are they protected STEEL PIPE.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 NONE. Is it fitted with a watertight door — worked from —BOILERS, &c.—(Letter for record Y) Manufacturers of Steel WORTH BROS. COATESVILLE, PA.Total Heating Surface of Boilers 8095 Is Forced Draft fitted YES. No. and Description of Boilers THREE SINGLE ENDED (SCOTCH)Working Pressure 190 lbs. Tested by hydraulic pressure to 285 lbs. Date of test 20-11-22 No. of Certificate —Can each boiler be worked separately YES. Area of fire grate in each boiler 61.37 sq No. and Description of Safety Valves toeach boiler TWO SPRING LOADED. Area of each valve 9.6 sq Pressure to which they are adjusted 190 lbs. Are they fitted with easing gear YES.Smallest distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers 15'-3" Length 11'-6 3/4" Material of shell plates STEEL.Thickness 1/32" Range of tensile strength 27-32 TONS. Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams D.R. LAP.long. seams T.R.D.B. STRAPS. Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 2 1/2"Per centages of strength of longitudinal joint rivets 88.23 Working pressure of shell by rules 195 lbs. Size of manhole in shell 16" x 12"Size of compensating ring 37 1/4" x 35 1/4" x 4 1/2" No. and Description of Furnaces in each boiler 3 MORISON. Material STEEL Outside diameter 49 1/4"Length of plain part top — bottom — Thickness of plates crown 5" bottom 8" Description of longitudinal joint WELDED. No. of strengthening rings —Working pressure of furnace by the rules 204 lbs. Combustion chamber plates: Material STEEL. Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"Pitch of stays to ditto: Sides 7 1/4" x 6 1/2" Back 7 3/4" x 6 1/2" Top 7 3/4" x 6 1/2" If stays are fitted with nuts or riveted heads NUTS. Working pressure by rulesMaterial of stays IRON. Area at smallest part 1.81 sq Area supported by each stay 50.4 sq Working pressure by rules 269 lbs. End plates in steam space:Material STEEL Thickness 1/32" Pitch of stays 16 5/8" x 18 3/4" How are stays secured DOUBLE NUTS Working pressure by rules 216 lbs. Material of stays STEEL.Area at smallest part 5.94 sq Area supported by each stay 262 sq Working pressure by rules 235 lbs. Material of Front plates at bottom STEEL.Thickness 3/4" Material of Lower back plate STEEL. Thickness 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 234 lbs.Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" x 3 3/4" Material of tube plates STEEL. Thickness: Front 3/4" x 5/8" Back 3/4" Mean pitch of stays 7 1/2"Pitch across wide water spaces 13" Working pressures by rules 224 lbs. Girders to Chamber tops: Material STEEL. Depth andthickness of girder at centre 9 3/4" x 1 1/2" Length as per rule 34" Distance apart 7 1/2" x 7 3/4" Number and pitch of stays in each 4 @ 6 1/2"Working pressure by rules 206 lbs. Steam dome: description of joint to shell NONE. % 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 NONE.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 —

W346-0067

IS A DONKEY BOILER FITTED? **No.**

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— **TWO CONNECTING ROD TOP END BOLTS & NUTS. TWO BOTTOM END BOLTS & NUTS. TWO MAIN BEARING BOLTS & NUTS. ONE SET COUPLING BOLTS & NUTS. ONE SET OF FEED & BILGE PUMP VALVES. ASSORTED BOLTS & NUTS. STEEL PLATE & IRON BAR OF VARIOUS SIZES. TWO HALF BUSHES FOR CRANK PIN. TWO HALF BUSHES FOR CON. ROD TOP END. TWO ECCENTRIC LINERS. ETC. ALSO SPARE PARTS FOR REFRIGERATING OUTFIT.**

PUMPS: MAIN CIRCULATING CENTRIFUGAL 1A. FEED. 2-12"X8"X24" EVAP. FEED. 1-5 1/4"X4 3/4"X5 1/2"
1. MAIN AIR PUMP-ATTACHED. 28" BILGE. 2-6"X5 3/4"X6" FUEL OIL SER. 2-6"X3 1/2"X6"
2. MAIN BILGE-ATTACHED. 4 1/2"X25 1/2" WATER SER. 1-6"X5 1/4"X6" "TRANSFER. 1-6"X5 1/4"X6"
1. COMB. AUXIL. AIR & CIRCUL. 10"X12"X12"X12" S.W. SANITARY. 2-6"X5 3/4"X6" ICE MACHINE. 1-4 1/2"X6 1/2"X6"
1. FIRE & BILGE 12"X8 1/2"X12" F.W. SANITARY. 1-5 1/4"X4 3/4"X5" CARGO OIL. 2-16"X14"X18"

The foregoing is a correct description,

THE WM. CRAMP & SONS SHIP & ENGINE BUILDING CO.

J. J. Mitten, Chief Engr. Manufacturer.

Dates of Survey while building **1922. NOV. 3, 15, 17, 20, 22, 28. DEC. 15, 22, 27. JAN. 4, 11, 15, 16, 25. FEB. 2, 6, 9.**
During progress of work in shops **12, 15, 20, 26. MAR. 5, 15. APR. 6, 11, 23.**
During erection on board vessel **26.**
Total No. of visits **26.**
Is the approved plan of main boiler forwarded herewith **YES.**
" " " donkey " " " **✓**

Dates of Examination of principal parts—Cylinders **15-11-22** Slides **15-11-22** Covers **15-11-22** Pistons **15-11-22** Rods **15-11-22**
Connecting rods **15-11-22** Crank shaft **15-11-22** Thrust shaft **15-11-22** Tunnel shafts **—** Screw shaft **15-3-23** Propeller **15-3-23**
Stern tube **15-3-23** Steam pipes tested **15-2-23** Engine and boiler seatings **15-11-22** Engines holding down bolts **15-11-22**
Completion of pumping arrangements **15-12-22** Boilers fixed **25-1-23** Engines tried under steam **6-4-23.**
Completion of ~~filling~~ **SURVEY OF** sea connections **15-3-23** Stern tube **15-3-23** Screw shaft and propeller **15-3-23**
Main boiler safety valves adjusted **6-4-23** 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 **—** 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 **YES. ✓** Is the flash point of the oil to be used over 150°F. **YES. ✓**

Have the requirements of Section 49 of the Rules been complied with **YES. ✓**

Is this machinery duplicate of a previous case **YES. ✓** If so, state name of vessel **"J. M. DANZIGER"**

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

THE MACHINERY AND BOILERS HAVE NOT BEEN BUILT UNDER SPECIAL SURVEY, BUT THEY HAVE BEEN ENTIRELY OPENED UP, RECONDITIONED, AND PARTLY RENEWED AS DETAILED IN ACCOMPANYING REPORT 9. THE SCANTLINGS OF THE BOILERS ARE IN ACCORDANCE WITH THE APPROVED PLAN, AND THE BOILERS WERE TESTED BY HYDRAULIC PRESSURE TO 285 lbs. PER SQ. INCH, AND WERE FOUND TIGHT & SOUND IN EVERY RESPECT. THE MACHINERY IS IN ACCORDANCE WITH THE APPROVED PLANS, AND IS FITTED ON BOARD TOGETHER WITH THE BOILERS IN A SATISFACTORY MANNER. THEY WERE TRIED UNDER STEAM UNDER FULL WORKING CONDITIONS, AND WERE FOUND SATISFACTORY. IN MY OPINION THE MACHINERY IS ELIGIBLE FOR THE RECORD OF LMC 4-23 FITTED FOR OIL FUEL, F.P. ABOVE 150°F.

SECTION 49 OF THE RULES HAS BEEN COMPLIED WITH.

It is submitted that this vessel is eligible for THE RECORD. LMC 4. 23. FD. CL. 54.23.

The amount of Entry Fee **\$30.00** When applied for, **19**
Special **\$485.00** When received, **19-6-23**
Donkey Boiler Fee **£ 5.00**
Travelling Expenses (if any) **—**

Committee's Minute **New York MAY 22 1923**

Assigned **LMC-4.23.**
TS-4.23.



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