

REPORT ON MACHINERY.

No. 2484

REC'D NEW YORK

Received at London Office

JAN 18, 1917

Date of writing Report 28th Dec 1916 When handed in at Local Office 28th Dec 1916 Port of PhiladelphiaNo. in Survey held at Philadelphia Date, First Survey Last Survey 20th Dec 1916
Reg. Book. on the S.S. "Wm Rockefeller" (Number of Visits 56)Master Built at Philadelphia By whom built The Wm Crump & Sons for P.R.B. Co. When built 1916
Engines made at Philadelphia By whom made The Wm Crump & Sons for P.R.B. Co. when made 1916
Boilers made at Do By whom made Do when made 1916Registered Horse Power Owners Standard Oil Co. Port belonging to Bayonne, N.J.
Nom. Horse Power as per Section 28 565 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 3
Dia. of Cylinders 27" 45" 76" Length of Stroke 51" Revs. per minute 78 Dia. of Screw shaft as per rule 15.3" Material of screw shaft 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 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 15.5" Size of Crank webs 10 1/4" Dia. of thrust shaft under collars 15" Dia. of screw 17.9" Pitch of Screw 16.0" No. of Blades 14 State whether moveable Yes Total surface 100.4 sq ft

No. of Feed pumps 2 Diameter of ditto 12 x 8" Stroke 34" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 6 x 5 1/4" Stroke 6" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 11 Sizes of Pumps Please see notes No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 3-3 1/2" & 1 1/2" & 1 1/2" in F. bilge In Holds, &c. 2-3 1/2" in Main Pump room: 3-3 1/2" in well in bilge room Main hold: 1-3" in chain locker
No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump pump 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
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
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 BothAre 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 4" steam to deck machinery How are they protected steel casing
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 YesIs 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 BrosTotal Heating Surface of Boilers 8095 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 single ended
Working Pressure 190 lbs Tested by hydraulic pressure to 285 lbs Date of test 17-11-16 No. of Certificate 107
Can each boiler be worked separately Yes Area of fire grate in each boiler 61.8 sq ft No. and Description of Safety Valves to each boiler double spring loaded Area of each valve 9.6" Pressure to which they are adjusted 190 lbs Are they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 15'-3" Length 11'-6 3/4" Material of shell plates Steel
Thickness 1 3/32" Range of tensile strength 78,320 lbs Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. Riv.
long. seams T.R.O.B.S. Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 21 1/2"Per centages of strength of longitudinal joint rivets 88.6 Working pressure of shell by rules 200 lbs Size of manhole in shell 16" x 12"
Size of compensating ring 7 1/4" x 15 1/4" x 1 3/32" No. and Description of Furnaces in each boiler 3 corrugated Material steel Outside diameter 49 1/4"
Length of plain part top Thickness of plates crown 7/8" Description of longitudinal joint welded No. of strengthening rings
Working pressure of furnace by the rules 204 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 3/4" x 6 1/2" Back 7 3/4" x 6 1/2" Top 6 1/2" x 7 3/4" If stays are fitted with nuts or riveted heads Both Working pressure by rules 198
Material of stays iron Area at smallest part 1.81 Area supported by each stay 50.4 Working pressure by rules 269 End plates in steam space:
Material steel Thickness 1 1/8" Pitch of stays 16 5/8" x 15 1/4" How are stays secured O. nuts Working pressure by rules 216 Material of stays steelArea at smallest part 5.94 Area supported by each stay 26.2 Working pressure by rules 235 Material of Front plates at bottom steel
Thickness 3/4" Material of Lower back plate steel Thickness 3 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 534
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 1/4"Pitch across wide water spaces 13" Working pressures by rules 239 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 1/4" x 12" 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 Steam dome: description of joint to shell % of strength of jointDiameter 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 stayedSUPERHEATER. 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 fitted21-23-24
Tons 246
49
2-29
1-4-5
120

Water Capacity.

Tons.

Tons.

Tons.

Tons.

Tons.

Tons.

Tons.

Tons.

Tons.

Tons.

Rpt. 13.

State the articles supplied:—

The foregoing is a correct description,
THE WM. CRAMP & SONS SHIP & ENGINE BUILDING CO.

J. F. Mellen

Manufacturer.

Dates of Survey while building	{	During progress of work in shops - -	1915. Nov. 11, 22, 29 Dec. 5, 17, 21, 28 Jan 12, 13, 19, 24, 31, Feb 11, 17, 28, Mar 2, 7, 10, 16, 21, 28 to Oct 13
		During erection on board vessel - - -	Oct 19, 23, 30, Nov 3, 6, 13, 15, 17, 21, 27, Dec 5, 11, 15, 16, 20
	{	Total No. of visits	56

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—Cylinders 13.1.16 Slides 27.3.16 Covers 27.3.16 Pistons 16.3.16 Rods 16.3.16
Connecting rods 24.4.16 Crank shaft 17.4.16 Thrust shaft 17.4.16 Tunnel shafts none Screw shaft 24.7.16 Propeller 19.10
Stern tube 19.10.16 Steam pipes tested 4.12.16 Engine and boiler seatings 13.10.16 Engines holding down bolts 13.11.16
Completion of pumping arrangements 15.12.16 Boilers fixed 5.12.16 Engines tried under steam 16.12.16
Completion of fitting sea connections 21.11.16 Stern tube 21.11.16 Screw shaft and propeller 21.11.16
Main boiler safety valves adjusted 16.12.16 Thickness of adjusting washers lack
Material of

Material of Crank shaft	Steel	Identification Mark on Do.	1670	Material of Thrust shaft	Steel	Identification Mark on Do.	1670
Material of Tunnel shafts	✓	Identification Marks on Do.	✓	Material of Screw shafts	Steel	Identification Marks on Do.	1670
Material of Steam Pipes	Steel			Test pressure	1670		

Is an installation fitted for burning oil fuel *yes: but not in service* ✓
 Have the requirements of Section 49 of the Rules been complied with *yes* ✓
 Test pressure *600 lbs per sq. in.*
 Is the flash point of the oil to be used over 150°F. ✓

Is this machinery duplicate of a previous case. yes If so, state name of vessel "San Jo"

General Remarks (State quality of workmanship, opinions as to class, &c. Pumps: 14" x 10 1/4" x 12": 3 @ 6" x 5 1/4" x 6"
2 @ 5 1/4" x 4 3/4" x 5": 6 x 5 3/4" x 6": 2 @ 6" x 5 1/2" x 6": 8" x 10" x 10" x 12": 4 1/2" x 6 1/2" x 6".

The machinery of this vessel has been built under special survey: the material and workmanship being good, and proved satisfactory on steam trials. It is submitted that this vessel be eligible for a record of + L.M.C. 12.16 in the Register Book, subject to the fuel oil sump on the fuel oil tank bulk head being permanently closed, which is to be done at Newport News. (Surveyors advised)

It is submitted that
this asset is eligible for
THE RECORD + L.M.

The Fuel oil suction has been closed.

See Npt. News
Sept 22-10/5.

The amount of Entry Fee	...	\$ 15-00:	When applied for,
Special	...	\$ 241-25	
Donkey Boiler Fee	...	£ :	19
Travelling Expenses (if any)		\$ 6-00:	When received,
			7 2 19

Committee's Minute New York JAN 4 1917

Assigned

7d. Feb. 12. 16 subject
Elec. Light

MACHINERY CERTIFICATE
WRITTEN 23.06/7

Engineer Surveyor to Lloyd's Register of Shipping.

This Certificate is issued
 "While the
 at neither the Committee
 Certificate issued by the Committee
 judgment, default, or negli-

-2m,12,11.



Lloyd's Register
Foundation