

REPORT ON MACHINERY.

REC'D NEW YORK

June 1, 1917

Received at London Office

Date of writing Report 28 May 1917 When handed in at Local Office 28 May 1917 Port of Jacksonville Fla.

No. in Survey held at Jacksonville Fla. Date, First Survey _____ Last Survey 19

Reg. Book. _____ on the Iron S.S. Pedro (Number of Visits _____)

Master R. J. Bughlan Built at Jacksonville By whom built Merrill Stevens Co. Tons { Gross 296 Net 153 When built 1917

Engines made at Jacksonville By whom made Merrill Stevens Co. when made 1917

Boilers made at Oswego N. Y. By whom made Kingsford Id. Machine Co when made 1917

Registered Horse Power 280 Owners Boston Molasses Co Port belonging to Boston

Nom. Horse Power as per Section 28 47 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound Direct Acting No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 10" 4 20" Length of Stroke 16" Revs. per minute _____ Dia. of Screw shaft _____ Material of screw shaft Carbon steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight

in the propeller boss ✓ 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 22"

Dia. of Tunnel shaft _____ Dia. of Crank shaft journals _____ Dia. of Crank pin 5 1/2" Size of Crank webs _____ Dia. of thrust shaft under

collars 5 1/2" Dia. of screw 4" 8" Pitch of Screw 6-3" No. of Blades 4 State whether moveable no Total surface 10.3 #

No. of Feed pumps 2 Diameter of ditto 4" Stroke 8" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 8" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 4" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One 2 1/2" Two 2" In Holds, &c. one in each tank hold. 2 1/2"

No. of Bilge Injections One sizes 4" 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 Yes

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 Soil pipes How are they protected overhead & boxed in

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 ✓ Is it fitted with a watertight door ✓ worked from _____

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____

Total Heating Surface of Boilers _____ Is Forced Draft fitted _____ No. and Description of Boilers _____

Working Pressure 140 lb. Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to

each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____ Material of shell plates

Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams

long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps

Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell

Size of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter

Length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings

Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom

Pitch of stays to ditto: Sides _____ Back _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____ End plates in steam space:

Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of stays

Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of Front plates at bottom

Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom

Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules

Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays

Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and

thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each

Working pressure by rules _____ 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

Tested by Hydraulic Pressure to _____

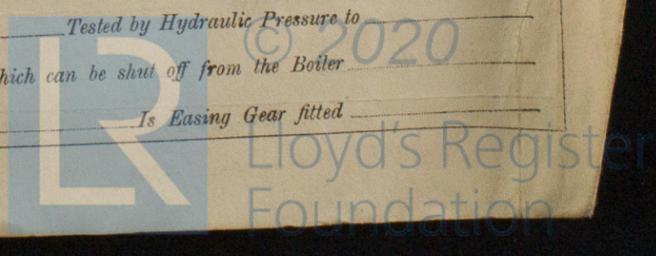
SUPERHEATER. Type _____ Date of Approval of Plan _____

Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted _____ Is Easing Gear fitted _____

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN. If net, plate whether, and when, one will be sent.

W1237-0138



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1 Crank shaft, 1 Connecting rod, 1 Crank pin bearing complete, 1 Crosshead bearing, 1 Crank shaft main bearing, 10 Boiler tubes, 25 Condenser tubes, 200 Condenser tube fastenings, 12 Cylinder head bolts, 1 Complete set of valves, springs, guard bolts for each pump specified, 2 propellers, 1 set of piston packing for each engine, 2 Main Bearing bolts, as per drawing.

The foregoing is a correct description,

Merrill-Sumner Co.
120 Summer St.

Manufacturer.

Dates of Survey while building: During progress of work in shops --- Mar 23, 26, 29, Apr 7, 3, 9, 11, 13, 14, 18, 21, 26, 27, 28, May 3
 During erection on board vessel ---
 Total No. of visits

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 26 March Slides 26 March Covers 26th March Pistons 26 March Rods 26 March
 Connecting rods 26 March Crank shaft 26 March Thrust shaft 26 March Tunnel shafts 29th March Screw shaft 29th March Propeller 26 April
 Stern tube 29th March Steam pipes tested 24 April Engine and boiler seatings 26th March Engines holding down bolts 26th March
 Completion of pumping arrangements 18th April Boilers fixed 10th April Engines tried under steam 26 April
 Completion of fitting sea connections 18th April Stern tube 26th April Screw shaft and propeller 26 April
 Main boiler safety valves adjusted 27th April Thickness of adjusting washers

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 *Copper* Test pressure 210 lbs.

Is an installation fitted for burning oil fuel 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. *This vessel's machinery has been built under survey and in accordance with the Rules. The material and workmanship are good and in our opinion the vessel is eligible for the Record F L M C 5.17*)

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.17.

J.W.D.
 20/7/17

The amount of Entry Fee ... \$5 : : When applied for,
 Special ... \$30 : : 12. 6. 1917
 Donkey Boiler Fee ... \$28 : : When received,
 Travelling Expenses (if any) ... \$20 : : 27/10/17

R. Sama Hugh Boyle H.F. Brown Acting Secy
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York JUN 12 1917
 Assigned + Lmb 5.17

MACHINERY CERTIFICATE WRITTEN 16.7.17

