

REPORT ON MACHINERY.

Received at London Office

Date of writing Report Jan 24 1920 When handed in at Local Office Jan 26th 1919 Port of Baltimore Md Ad 23 1920

No. in Survey held at Alexandria Va. Date, First Survey Aug 19th Last Survey Dec 31st 1919
Reg. Book. on the S. S. E. A. Morse (Number of Visits 16) Tons {Gross 6054
Net 3743

Master A. M. Packer Built at Alexandria Va. By whom built Virginia Shipbuilding Co When built 1919

Engines made at Phillipsburg N.J. By whom made Ingersoll Rand Co. (No 1080) when made 1919

Boilers made at Chester Pa By whom made Sun Shipbuilding Co when made 1919

Registered Horse Power _____ Owners U.S. Steamship Corp Port belonging to Alexandria Va.

Nom. Horse Power as per Section 28 475 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24 1/2 - 4 1/2 - 7 1/2 Length of Stroke 48 Revs. per minute 80 Dia. of Screw shaft as per rule 13.87 as fitted 14.5 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 yes 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 yes If two liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 5-2 1/2

Dia. of Tunnel shaft as per rule 12.9 as fitted 13.16 Dia. of Crank shaft journals as per rule 13.75 as fitted 14 Dia. of Crank pin 14 3/8 Size of Crank web 9 3/4 x 29 1/2 Dia. of thrust shaft under collars 14 Dia. of screw 16.5 Pitch of Screw 15-9 No. of Blades 4 State whether moveable yes Total surface 77.66

No. of Feed pumps 2 Diameter of ditto 8 Stroke 24 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 5 Stroke 21 Can one be overhauled while the other is at work yes

No. of Donkey Engines 4 Sizes of Pumps 12x10x12 7 1/2 x 5 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2-3 1/2 Thrust recess 1-5 1/2 Tunnel 13 1/2 In Holds, &c. No 1-2, 3 1/2 No 2, 2-3 1/2 No 3, 2-3 1/2 No 4-2-3 1/2

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 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 yes

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 below

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 yes How are they protected yes

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 yes Is it fitted with a watertight door yes worked from top platform of E.R.

BOILERS, &c.—(Letter for record 37) Manufacturers of Steel

Total Heating Surface of Boilers 8331 Is Forced Draft fitted _____ No. and Description of Boilers J.S.B

Working Pressure 190 Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

Can each boiler be worked separately yes Area of fire grate in each boiler oil burner No. and Description of Safety Valves to each boiler 2 direct spring loaded Area of each valve 9.320 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 _____ 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 _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____

Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____

Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____

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 _____

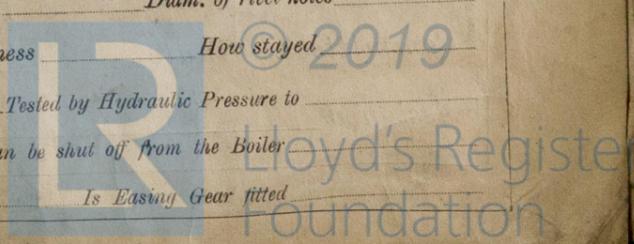
Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

UPERHEATER. 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 fitted _____

6200-721M



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Set top end brasses with bolts & nuts, 1 Set bottom end brasses with bolts & nuts, 2 main bearing bolts & nuts, 1 H. P. valve spindle 12 follower bolts for pistons, 1 set of springs each for H.P. & I.P. piston 1 Spring ring for L. P. piston, 1 Set coupling bolts, 2 safety valve springs 12 cylinder covers & 12 steam chest studs & nuts, 6 valves & guards for air pump 1 set valves & guards for bilge pumps, 1 set valves-guards & springs for each independent pump fitted Assorted bolts & nuts, sheet & bar iron*

The foregoing is a correct description.

Virginia Shipbuilding Corp
per J. Warner Plant Mgr Manufacturer.

Dates of Survey while building: During progress of work in shops -- Aug 19-29 - Sept 30 Oct 7th 10-21-24-29-31 Dec 2-5-9-16-23-30-31
During erection on board vessel ---
Total No. of visits *16.*

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders *Aug 19* Slides *Aug 19* Covers *Aug 19* Pistons *Aug 19* Rods *Aug 19*
Connecting rods *Aug 29* Crank shaft *Oct 10* Thrust shaft *Oct 13* Tunnel shafts *Oct 13* Screw shaft *Oct 7th* Propeller *Oct 7th*
Stern tube *Oct 7th* Steam pipes tested *Dec 16* Engine and boiler seatings *Sep 30th* Engines holding down bolts *Oct 9th*
Completion of pumping arrangements *Dec 25* Boilers fixed *Dec 2nd* Engines tried under steam *Dec 31st*
Completion of fitting sea connections *Oct 24* Stern tube *Oct 24* Screw shaft and propeller *Oct 24*
Main boiler safety valves adjusted *Dec 31st* Thickness of adjusting washers *F 1 3/4 A 1 1/2 P 1 1/2 S 1 1/2 F 1 3/4 A 1 1/2*
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.
Material of Steam Pipes *Steel* ✓ Test pressure *500 by U.S. local inspectors*
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 *Lumston Hall, Betsey Bell, Yanada*

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

Machinery in this vessel was received in sections from the engine builder and assembled on board the vessel and examined during erection. All materials were tested by the American Bureau of Shipping. Boilers were built at Chester Pa. (Philadelphia report No 3467) and have been installed in an efficient manner.

Machinery and Boilers have been installed in an efficient manner from approved plans, and under special survey during installation and is eligible in my opinion to have notation in the register book of L. M. C. 12. 19 fitted for the burning of oil fuel. flash point above 150 degrees. Electric light

It is submitted that this vessel is eligible for THE REGISTER L.M.C. 12.19. FITTED FOR OIL FUEL 12.19. F.P. ABOVE 150°F

The amount of Entry Fee ... £ *15.00* When applied for, *Jan 10th 1920*
Special ... £ *157.84*
Donkey Boiler Fee ... £
Travelling Expenses (if any) £ *40.00* When received, *15/9/20*

John M. Sheriff
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *New York FEB - 3 1920*

Assigned *L.M.C. 1219*

MACHINERY DEPT.
WRITTEN.
23. 2. 20

