

Rpt. 4.

REPORT ON MACHINERY

No. 2834

Date of writing Report *Mar 24th 1920* When handed in at Local Office *Mar 27th 1920* Port of *Baltimore Md*
No. in Survey held at *Alexandria Va.* Date, First Survey *Nov. 7th 1919* Last Survey *Mar 5th 1920*
Reg. Book. on the *Steamer Clemence C. Morse* (Number of Visits *16*)
Master *A. Haley* Built at *Alexandria Va* By whom built *Virginia S. B. Co.* Tons { Gross *6061*
Engines made at *Hamilton Ohio* By whom made *Hooven Owens Rentschler & Co* Net *2759*
Boilers made at *Chester Pa.* By whom made *Sun Shipbuilding Co.* When built *1920*
Registered Horse Power *547* Owners *United States* when made *1919*
Nom. Horse Power as per Section 28 *510* Is Refrigerating Machinery fitted for cargo purposes *No* when made *1919*
Is Electric Light fitted *Yes* Port belonging to *Alexandria Va*

ENGINES, &c.—Description of Engines

Dia. of Cylinders		Length of Stroke	Revs. per minute	No. of Cylinders		No. of Cranks	
Is the screw shaft fitted with a continuous liner the whole length of the stern tube		If the liner is in more than one length are the joints burned		Is the after end of the liner made water tight		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 <i>5'-2 1/2"</i>			
Dia. of Tunnel shaft as per rule		Dia. of Crank shaft journals as per rule		Dia. of Crank pin		Size of Crank webs	
Dia. of screw		Pitch of Screw		No. of Blades		State whether moveable <i>Yes</i> Total surface	
No. of Feed pumps <i>2</i>		Diameter of ditto <i>12 x 8</i> Stroke <i>24</i>		Can one be overhauled while the other is at work <i>Yes</i>			
No. of Bilge pumps		Diameter of ditto		Stroke		Can one be overhauled while the other is at work <i>Yes</i>	
No. of Donkey Engines <i>4</i>		Sizes of Pumps <i>12 x 8 1/2 x 12</i>		<i>10 x 7 x 10</i>		No. and size of Suctions connected to both Bilge and Donkey pumps	
In Engine Room <i>2-3 1/2"</i>		Thrust Recess <i>1-8 1/2"</i>		Tunnel <i>1-3 1/2"</i>		In Holds, &c. <i>No 1-2, 3 1/2". No 2, 2-3 1/2". No 3, 2-3 1/2"</i>	
No. of Bilge Injections <i>1</i> sizes <i>10"</i>		Connected to condenser, or to circulating pump <i>Yes</i>		Is a separate Donkey Suction fitted in Engine room & size <i>Yes-3 1/2"</i>			
Are all the bilge suction pipes fitted with roses		Are the roses in Engine room always accessible		Are the sluices on Engine room bulkheads always accessible			
Are all connections with the sea direct on the skin of the ship <i>Yes</i>		Are they Valves or Cocks <i>both</i>					
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates <i>Yes</i>		Are the Discharge Pipes above or below the deep water line <i>below</i>					
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel <i>Yes</i>		Are the Blow Off Cocks fitted with a spigot and brass covering plate <i>Yes</i>					
What pipes are carried through the bunkers		How are they protected					
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times <i>Yes</i>							
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges <i>Yes</i>							
Is the Screw Shaft Tunnel watertight <i>Yes</i>		Is it fitted with a watertight door <i>Yes</i>		worked from <i>top platform in E R.</i>			

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

Total Heating Surface of Boilers		Is Forced Draft fitted <i>Yes</i>		No. and Description of Boilers	
Working Pressure <i>190 lbs</i>		Tested by hydraulic pressure to		Date of test	
Can each boiler be worked separately <i>Yes</i>		Area of fire grate in each boiler		No. of Certificate <i>312 Phila</i>	
each boiler <i>2 direct spring loaded</i>		Area of each valve <i>9.62 sq</i>		Pressure to which they are adjusted <i>190 lbs</i>	
Smallest distance between boilers or uptakes and bunkers or woodwork		Mean dia. of boilers		Length	
Thickness		Range of tensile strength		Material of shell plates	
long. seams		Diameter of rivet holes in long. seams		Descrip. of riveting: cir. seams	
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	
Length of plain part		Thickness of plates		Outside diameter	
Working pressure of furnace by the rules		Combustion chamber plates: Material		No. of strengthening rings	
Pitch of stays to ditto: Sides		Back		Top	
Material of stays		Area at smallest part		Area supported by each stay	
Material		Thickness		Pitch of stays	
Area at smallest part		Area supported by each stay		Working pressure by rules	
Thickness		Material of Lower back plate		Working pressure of plate by rules	
Diameter of tubes		Pitch of tubes		Material of tube plates	
Pitch across wide water spaces		Working pressures by rules		Girders to Chamber tops: Material	
thickness of girder at centre		Length as per rule		Distance apart	
Working pressure by rules		Steam dome: description of joint to shell		% of strength of joint	
Diameter		Thickness of shell plates		Material	
Pitch of rivets		Working pressure of shell by rules		Crown plates	
SUPERHEATER. Type <i>Foster</i>		Date of Approval of Plan		Tested by Hydraulic Pressure to <i>630 lbs</i>	
Date of Test <i>American Bureau of Shipping</i>		Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler			
Diameter of Safety Valve <i>2"</i>		Pressure to which each is adjusted <i>225 lbs</i>		Is Easing Gear fitted	

Lloyd's Register
Foundation
29-0130

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 junk ring bolts, 1 set coupling bolts, 1 set springs each for H.P. & L.P. pistons, 1 Spring ring for L.P. piston, 2 Safety valve springs, 12 cylinder cover & 12 steam chest cover studs nuts, 6 valves & guards for air pump. Set valves & guards for air pump, 1 set valves-guards & springs for each independent pump fitted. Assorted bolts-nuts-sheet & bar iron, 1 propeller blade.*

The foregoing is a correct description,

Virginia Ship Bldg Corp
per D. W. James
Plant Mgr

Manufacturer.

Dates of Survey while building
During progress of work in shops ---
During erection on board vessel ---
Total No. of visits

Nov. 7-14-21. Dec. 2-9-23-31. Jan 9-16-20-28 Feb. 3-10-13-26 Mar 5-16.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Feb 13th

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Feb 26

Boilers fixed

Feb 10th

Engines tried under steam

March 5th

Completion of fitting sea connections

Jan 9th

Stern tube

Dec. 31

Screw shaft and propeller

Jan 9th

Main boiler safety valves adjusted

Mar 5th

Thickness of adjusting washers

Star. A 1 1/2. F 1 3/8. S 1 3/4. P 1 3/2. F 1 9/16. A 1 9/16.

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 *Gumstan Hall - Betty Bell*

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

Boilers and machinery have been installed under special survey. Tried out under steam and found to work in satisfactory manner. The machinery in this vessel is eligible in my opinion to have notation in the register book # L.M.C. 3.20. Electric light. forced draft fitted for the burning of oil fuel 7P above 150 degrees

It is submitted that this vessel is eligible for

THE RECORD + L.M.C. 3.20 F.D.

FITTED FOR OIL FUEL 3.20 F.P. ABOVE 150°F.

Subject to the screw shaft being specially examined at joint of liners before the end of March 1922.

W.D.

20/4/20

GRJ

The amount of Entry Fee ... £

\$15.00;

When applied for,

Special

\$235.75.

March 20, 1920.

Credit Philadelphia *\$78.58.*

Donkey Boiler *\$78.58.*

" Baltimore *\$78.58.*

Travelling Expenses (if any) *\$40.00.*

When received,

Philadelphia \$225.00

Aug. 20, 1919

John. M. Sheriff

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York MAR 3 U 1920

Assigned

+ L.M.C. 3.20.

Subject

MACHINERY CERT.

WRITTEN 13/4/20.



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