

REC'D NEW YORK NOV 20 1920

Rpt. 4.

REPORT ON MACHINERY.

No. 3050

Received at London Office

TUE. DEC. 7 1920

Date of writing Report 10th Nov. 1920 When handed in at Local Office

10 Port of Baltimore Md

No. in Survey held at Alexandria Va.

Date, First Survey 16 January 1920 Last Survey 2nd Oct. 1920

Reg. Book.

78048 on the

Steamer Colin A Livingston

Tons } Gross 6071
Net 3781

Master Laurent Built at Alexandria Va. By whom built Virginia SB Company

When built 1920

Engines made at Hamilton Ohio By whom made Hoover Brown & Kentschler Co.

when made 1919

Boilers made at Chester Pa By whom made Sun Shipbuilding Company

when made 1920

Registered Horse Power 2800

Owners U S Shipping Board

Port belonging to Alexandria Va

Nom. Horse Power as per Section 28 514

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 $\frac{1}{2}$ —41 $\frac{1}{2}$ —72" Length of Stroke 48" Revs. per minute 88 Dia. of Screw shaft as per rule 14.29 15" as fitted 15" Material of screw shaft 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 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 If two

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5' 2 $\frac{1}{2}$ Dia. of Tunnel shaft as per rule 12.9 13.16 Dia. of Crank shaft journals as per rule 13.75 13.81 Dia. of Crank pin 14 $\frac{3}{8}$ Size of Crank webs 9 $\frac{1}{2}$ x 27 $\frac{1}{4}$ Dia. of thrust shaft under

collars 14" Dia. of screw 16" 9" Pitch of Screw 15" 9" No. of Blades 4 State whether moveable yes Total surface 77.66 sq ft

No. of Feed pumps 2 Diameter of ditto 12 x 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 12 x 8 $\frac{1}{2}$ x 12 10 x 7 x 10 No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 2 Nos 3 $\frac{1}{2}$ Tunnel one 3 $\frac{1}{2}$ Thrust recess one 3 $\frac{1}{2}$ In Holds, &c No 1 2 Nos 3 $\frac{1}{2}$ No 2 2 Nos 3 $\frac{1}{2}$ No 3 2 Nos 3 $\frac{1}{2}$ No 4 2 Nos 3 $\frac{1}{2}$ No. of Bilge Injections one sizes 10" Connected to condenser, or to circulating pump Cir. Pumps a separate Donkey Suction fitted in Engine room & size yes 3 $\frac{1}{2}$ "

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 none How are they protected

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 non-return valves fitted

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Engine room top platform

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

Total Heating Surface of Boilers 8331 Is Forced Draft fitted yes No. and Description of Boilers

Working Pressure 200 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 rivets 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 top Thickness of plates crown 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

SUPERHEATER. 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

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W389-0186

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—One Set of top end brasses with bolts & nuts, one Set of crank pin brasses with bolts & nuts, Two main bearing bolts & nuts, one H. P. Slide valve spindle, Twelve followers bolts for each piston, one Set of Springs for each piston, Two H. P. Two I. P. piston rings, one L. P. piston ring, one Set of Coupling bolts, Six piston valve rings, Twelve cylinder covers & studs, one Set of Safety valve Springs, Six valves & studs for air pump, one Set of valves & guards for bilge pumps, one Set of valves & guards for each independent pump, one Top & bottom Spring for H. P. piston valve, assorted bolts & nuts bars & plates of iron.

The foregoing is a correct description,

Virginia Shipbuilding Corp.

Manufacturer.

Dates of Survey while building

During progress of work in shops --

During erection on board vessel --

Total No. of visits

May 14th 25 June 8th 18th Aug. 27th Sept. 16th 27th Oct. 15th 19th 22nd

Is the approved plan of main boiler forwarded herewith

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 19th Oct 1920Engine and boiler seatings 8th JuneEngines holding down bolts 15th Oct 1920Completion of pumping arrangements 15th Oct 1920

Boilers fixed July 1920

Engines tried under steam 26th Oct 1920Completion of fitting sea connections 20th June 1920Stern tube 27th Sept. 1920Screw shaft and propeller 14th May 1920Main boiler safety valves adjusted 26th Oct 1920

Thickness of adjusting washers

none fitted

Material of Crank shaft G. H. Steel

Identification Mark on Do. A.B.S. 1572

Material of Thrust shaft G. H. Steel

Identification Mark on Do. A.B.S. 1572

Material of Tunnel shafts G. H. Steel

Identification Marks on Do. A.B.S. 941

Material of Screw shafts G. H. Steel

Identification Marks on Do. A.B.S. 941

Material of Steam Pipes Lap welded 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 S. S. Anna E. Morse Report No. 290

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

Machinery in this vessel was received in sections from the engine builders and assembled on board the vessel and examined during erection. Boilers were built at Chester Pa. (Philadelphia report No. 3746) 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 made in the register book of L.M.C. 10-20 fitted for the burning of oil fuel flash point above 150° F.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ 15.00

Special Total Fee ... £ 235.75

Donkey Boiler Fee ... £ 78.58

Travelling Expenses (if any) ... £ 25.75

New York NOV 23 1920

When applied for, 2nd Nov. 1920

When received,

L. Norworthy

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

+ L.M.C. 10.20

MACHINERY DEALER

WRITTEN

7.12.20



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