

Rpt. 4.

REPORT ON MACHINERY.

No. 69.

Date of writing Report 14 June 1919 When handed in at Local Office 18 June 1919 Port of Cleveland TUE APR 13 1919  
No. in Survey held at Hamilton Ohio Date, First Survey 26 May Last Survey 9 June 1919  
Reg. Book. on the ENG N-4548. Steamer Clemence C Morel (Number of Visits 3)

Master A. Haley Built at Alexandria Va By whom built Virginia S. B. Co. Tons Gross 6061 Net 3759  
Engines made at Hamilton Ohio By whom made Horrobin Owens & Kuntze Co when made 1919  
Boilers made at Chester Pa By whom made Sun Shipbuilding Co when made 1919  
Registered Horse Power Owners Emergency Fleet Corporation Port belonging to Alexandria Va  
Nom. Horse Power as per Section 28 510 547 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted 359 WAP

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 24 1/2 - 41 1/2 - 72 Length of Stroke 48 Revs. per minute 88 Dia. of Screw shaft as per rule 4 1/2 as fitted 15 1/2 Material of screw shaft Steel  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube (2 liners) 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 soldered 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  
Dia. of Tunnel shaft as per rule 13 1/6 as fitted 13 3/8 Dia. of Crank shaft journals as per rule 13 7/8 as fitted 14 1/4 Dia. of Crank pin 14 3/8 Size of Crank webs x 9 1/2 Dia. of thrust shaft under collars 14 Dia. of screw 16 1/2 9 Pitch of Screw 16 1/2 9 No. of Blades 4 State whether moveable Total surface 79.06 Sq ft  
No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
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 Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size  
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 Are they Valves or Cocks  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate  
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  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
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 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 plate 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 bottom Thickness of plates crown bottom 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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—Two top & bottom end bolts & nuts. Two main bearing bolts & nuts. Set of coupling bolts & nuts. One crank pin bearing. Pair of top end braces. H.P. Valve spindle. Two H.P. two I.P. & one L.P. piston rings. Two H.P. piston valve rings. Set of valves, guards & retainers for Air & Bilge pumps.

The foregoing is a correct description,

for engine only  
THE HOOVEN, OWENS, RENTSCHLER CO.

S. S. Heale, Asst Chief Engr Manufacturer.

Dates of Survey while building { During progress of work in shops - - May 26<sup>th</sup> June 2<sup>nd</sup> & 9<sup>th</sup> 1919.  
During erection on board vessel - -  
Total No. of visits

Is the approved plan of main boiler forwarded herewith Do.

Dates of Examination of principal parts—Cylinders 26/5/19 Slides 2/6/19 Covers 2/6/19 Pistons 2/6/19 Rods 9/6/19

Connecting rods 9/6/19 Crank shaft 26/5/19 Thrust shaft 9/6/19 Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. See list attached Material of Thrust shaft Steel Identification Mark on Do. See list attached

Material of Tunnel shafts Steel Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do.

Material of Steam Pipes Test pressure

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 N-4516 If so, state name of vessel

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

The above engines have been constructed under Special Survey & under the supervision of the American Bureau Surveyors.  
The Materials & Workmanship employed in their manufacture so far as can be seen are sound & efficient.  
When the engines have been satisfactorily installed in vessel & proving satisfactory under working conditions & spare gear being supplied as required by the rules, the vessel in which they are fitted will in my opinion be eligible for record of L.R.C. (with date)

Certificate (if required) to be sent to

The amount of Entry Fee ... \$15.00 : When applied for,  
Special ... \$ : : 19  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) \$ 18.85 :  
37.75 : When received, 19

Committee's Minute New York MAR 3 0 1920  
Assigned See Balto. Rpt 2834

J. Robinson  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation