

Rpt. 4.

REC'D NEW YORK *Nov 28 1918*

REPORT ON MACHINERY.

No. *44*
*Int. No. 1631*REC'D NEW YORK *June 27 1918*

Received at London Office

MON 16 DEC. 1918

Date of writing Report *June 5 1918* When handed in at Local Office *Nov 27 1918* Port of *Montreal*No. in Survey held at *Toronto* Date, First Survey *March 6 1918* Last Survey *Nov 11 1918*
Reg. Book.on the *Imperial Engrs R43 Nord S.S. "War Seneca"*Master *M. Clifford* Built at *Quebec* By whom built *Quinlan & Robertson* Tons *Gross 2284*
*Net 1328*Engines made at *Toronto* By whom made *Canadian Allis Chalmers* when made *1918*Boilers made at *Toronto* By whom made *Polson Iron Works* when made *1918*Registered Horse Power *113.5* Owners *Imperial Munitions Board* Port belonging to *Quebec*Nom. Horse Power as per Section 28 *322* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*ENGINES, &c.—Description of Engines *Inverted triple expansion* No. of Cylinders *3* No. of Cranks *3*Dia. of Cylinders *20 33 54* Length of Stroke *40* Revs. per minute *70* Dia. of Screw shaft *as per rule 117* Material of screw shaft *as fitted*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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *Yes* If twoliners are fitted, is the shaft lapped or protected between the liners *Joint shopped & soldered* Length of stern bushDia. of Tunnel shaft *as per rule 10.398* Dia. of Crank shaft journals *as per rule 10.91* Dia. of Crank pin *11-125* Size of Crank webs *7x21* Dia. of thrust shaft undercollars *11-5* Dia. of screw *14-6* Pitch of Screw *15-3* No. of Blades *4* State whether moveable *No* Total surface *66-45 sq. ft.*No. of Feed pumps *2* Diameter of ditto *3-5* Stroke *20* Can one be overhauled while the other is at work *Yes*No. of Bilge pumps *2* Diameter of ditto *3-5* Stroke *20* Can one be overhauled while the other is at work *Yes*No. of Donkey Engines *3* Sizes of Pumps *Ballast, Supply 7 1/2 x 10 x 10" Ind. Feed 10 x 6 x 17"* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *2-3" 1-3" 1-3"* In Holds, &c. *7" 2 1/2" No. 1. Hold 2-3" Tank space 2-4" No. 2.*No. of Bilge Injections *1* sizes *6"* 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 *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 *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 *All suctions to Ford end.* How are they protected *at side of hold by keelson in wood casing.*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 *No* Is it fitted with a watertight door *Yes* worked from *Yes*OILERS, &c.—(Letter for record *(S)*) Manufacturers of SteelTotal Heating Surface of Boilers *5280* Is Forced Draft fitted *Yes* No. and Description of Boilers *Two Howden*Working Pressure *185 lbs.* 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

ong. 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

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

Material 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:— 7 Coupling bolts and nuts. 2 Connecting rod bottom end bolts and nuts. 2 Connecting rod top end bolts and nuts. 2 main bearing bolts and nuts. 1 Set 2nd and Bilge pump valves. 1 Set Air pump valves. 1 Set Circulating pump valves. 1 Set of H.P. I.P. and L.P. piston rings. 25 Condenser tubes. assorted bolts, nuts and iron.

The foregoing is a correct description,

Canadian Ellis Clealiner Ltd Manufacturer.

Dates of Survey while building: During progress of work in shops -- March 6, 8, 13, 22, April 12, 17, 20, 22, 24, 26, May 2, 6, 8, 9, 10, 13, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28. During erection on board vessel -- July 4, 10, 14, 27, 30, Aug 5, 8, 12, 23, 31, Sept 20, Oct 11, 22, Nov 5, 11. Total No. of visits 43

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts—Cylinders 13-5-18 Slides 25-5-18 Covers 13-5-18 Pistons 15-5-18 Rods 27-5-18

Connecting rods 27-5-18 Crank shaft 28-5-18 Thrust shaft 28-5-18 Tunnel shafts 28-5-18 Screw shaft Propeller

Stern tube Steam pipes tested 29-7-18 Engine and boiler seatings 4-6-18 Engines holding down bolts 14-7-18

Completion of pumping arrangements 7-11-18 Boilers fixed 10-7-18 Engines tried under steam 6-11-18

Completion of fitting sea connections 13-9-18 Stern tube 3-6-18 Screw shaft and propeller 13-6-18

Main boiler safety valves adjusted 7-11-18 Thickness of adjusting washers F 3/4 A 1/4 F 3/8 A 9/16

Material of Crank shaft O.H. Steel Identification Mark on Do 504 28-5-18 Material of Thrust shaft O.H. Steel Identification Mark on Do 505 28-5-18

Material of Tunnel shafts O.H. Steel Identification Marks on Do 506 28-5-18 Material of Screw shafts S. Identification Marks on Do

Material of Steam Pipes Steel Test pressure 555 lbs. ✓

Is an installation fitted for burning oil fuel No ✓ 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 Yes ✓ If so, state name of vessel War Mohawk, & vessels on West Coast.

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been

Constructed under special survey. It is of good material and workmanship and is eligible in our opinion for record with date when survey is completed. It has been shipped to Quebec to be fitted in wooden ship.

To Complete:— Engines to be fitted and secured on board with auxiliaries and connections according to rules.

These engines have been satisfactorily fitted on board the vessel. The steam pipes have been tested in position to 555 lbs water pressure. The whole installation together with all the auxiliary machinery has been tried under full working conditions with satisfactory results. In my opinion the installation is eligible to receive the notation of LMC. 11-18 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD, + LMC 11-18. F.D.

Subject to annual survey of Water Tube Boilers Subject to the screw shaft being specially examined at joint of lines before the end of November 1920

The amount of Entry Fee ... £15 : 00 : When applied for, June 8 1918
Special Installation Fee (Montreal) ... £60 : 00 :
Donkey Boiler Fee ... £61 : 00 :
Travelling Expenses (if any) £ : : When received, 27/3/1919

Committee's Minute

Assigned

Alexander Scott W. J. Alderson
Engineer Surveyor to Lloyd's Register of Shipping.

FRI DEC 20 1918

FRI NOV 19 1920

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