

REPORT ON MACHINERY.

No. 1625

REC'D NEW YORK Nov. 27 1918
When handed in at Local Office

Received at London Office

MON. 16 DEC. 1918

of writing Report

Port of Montreal

Where and when tested at Superintendent.

Date, First Survey Dec. 12 1917 Last Survey Nov 7 1918

in Survey held at Lachine
Book on the Engine N^o R17. J. M. B. Wood & S. "War Quebec"

(Number of Visits 46)

ster J. Cormac Built at Quebec P.Q. By whom built Quebec Ship & Rep. Co. Ltd.

Tons Gross 2447

Net 1442

When built 1918-11

ines made at Lachine By whom made Dominion Bridge Co Ltd when made 1918.

ilers made at St. Catharions Ont By whom made Engine & Machine Co of Canada when made 1918

Registered Horse Power 146.5 Owners Imperial Steamship Board. Port belonging to Quebec.

Horse Power as per Section 28 318.322 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

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

a. of Cylinders 20"-33"-54" Length of Stroke 40" Revs. per minute 70. Dia. of Screw shaft as per rule 11.74" Material of Steel

the screw shaft fitted with a continuous liner the whole length of the stern tube No. 3 liners Is the after end of the liner made water tight

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

ween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive? If two

ers are fitted, is the shaft lapped or protected between the liners? Length of stern bush 4'-1"

a. of Tunnel shaft as per rule 10.30" Dia. of Crank shaft journals as per rule 10.9" Dia. of Crank pin 11 1/8" Size of Crank webs 3'-5"x7" Dia. of thrust shaft under

bars 11 1/2" Dia. of screw 14-6" Pitch of Screw 15'-3" No. of Blades 4. State whether moveable No. Total surface 66.4 Sqft.

. of Feed pumps 2. Diameter of ditto 3 1/2" Stroke 20" Can one be overhauled while the other is at work Yes.

. of Bilge pumps 2. Diameter of ditto 3 1/2" Stroke 20" Can one be overhauled while the other is at work Yes.

. of Donkey Engines 3 Sizes of Pumps Gen. Service Duplex 8"x4"x6" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 2-3" In Hold, &c. Fore Peak 1-2 1/2" No. Hold 2-3" Tank space 2-4"

o 2. Hold. 1-3" 2-2 1/2" Cross Bunker 2-2 1/2"

. of Bilge Injections / sizes 6" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 4"

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

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both.

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

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

but pipes are carried through the bunkers Forward suction How are they protected At side of steel bulkhead & wood casing

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

ates of examination of completion of fitting of Sea Connections 27-6-18 of Stern Tube 13-6-18 Screw shaft and Propeller 27-6-18

the Screw Shaft Tunnel watertight No Is fitted with a hand worked door with cables worked from engine room.

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

al Heating Surface of Boilers 5280 Sqft. Is Forced Draft fitted Yes. No. and Description of Boiler Two Horizontal Water Tube.

orking Pressure 185 lbs. Tested by hydraulic pressure to Date of test No. of Certificate

in each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

ch boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

allest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

ickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

ty. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

er centages of strength of longitudinal joint rivets. Working pressure of shell by rules Size of manhole in shell

ze of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

ength of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

orking pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

itch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

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

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

iameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

ickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

iameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

itch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

ickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

orking pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

eparately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

les Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

orking pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

W734-0011



VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description				
Made at	By whom made		When made	Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler		Dia. of donkey boiler	Length	
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates		Radius of do.	Stayed by	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— 4 connecting rod top end bolts & nuts. 2 connecting rod bottom end bolts & nuts. 2 main bearing bolts & nuts. 1 set of coupling bolts & nuts. 1 set of feed & bilge pump. 3 sets of piston rings. 1 spare propeller. A quantity of assorted bolts & nuts of various sizes. 25 condenser tubes & 50 ferrules & packing. 1 set of air & circulating pump valves.

The foregoing is a correct description,
A. E. Johnson, W.E. Manufacturer.

Dates of Survey while building: During progress of work in shops: Dec 12, 1917, Jan 2, 17, 21, 24, 29, Feb 1, 4, 10, 16, 20, Mar 5, 9, 13, 19, 25, Apr 1, 5, 8, 19, 25, May 4, 15, 21, 29, 31, June 6, 8, 13, 18, 28 & July 1, 2, 1918.
 During erection on board vessel: July 10, 30, Aug 3, 8, 12, 15, 16, 23, 30, Sept 7, Oct 4, 11, 22, Nov 7.
 Total No. of visits: 46.

Dates of Examination of principal parts—Cylinders 21-5-18, Slides 21-5-18, Covers 8/6/18, Pistons 8/6/18, Rods 4/5/18.
 Connecting rods 6/6/18, Crank shaft 4-5-18, Thrust shaft 15-5-18, Tunnel shafts 15-5-18, Screw shaft 21-5-18, Propeller.
 Stern tube, Steam pipes tested 30-9-18, Engine and boiler seatings 27-6-18, Engines holding down bolts 23-8-18.
 Completion of pumping arrangements 11-11-18, Boilers fixed 9-8-18, Engines tried under steam 22-10-18.
 Main boiler safety valves adjusted 4-11-18, Thickness of adjusting washers: Studs 1 1/8" F 5/8", Pins 1/2" F 5/8".
 Material of Crank shaft: Steel, Identification Mark on Do. W.V.S. A.J.M.
 Material of Thrust shaft: Steel, Identification Mark on Do. F.W.T.
 Material of Tunnel shafts: Steel, Identification Marks on Do. A.J.M.
 Material of Screw shafts: Steel, Identification Marks on Do. T.M.
 Material of Steam Pipes: Steel, Test pressure 555 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.)
 These engines have been constructed under special survey and in accordance with the rules. The materials are good and the workmanship satisfactory. They have been installed in the vessel and tried under full working conditions together with the auxiliary machinery and were all found to be working satisfactorily. In my opinion they are eligible to bear the record of L.M.C 11-18 in the Register book of the Society. The joints of the liner to be specially examined at the end of two years.

It is submitted that this vessel is eligible for THE RECORD. L.M.C 11-18. FD.

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

J.M. *J.W.D.* 18/12/18

J. Robinson & A. J. Alders
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

The amount of Entry Fee .. \$15.50
 Special Installation Fee .. £ 61.00
 Donkey Boiler Fee .. £ 61.00
 Travelling Expenses (if any) £ 3.80

Committee's Minute
 Assigned

FRI. DEC. 20. 1918
 + L.M.C 11. 18.
 subject
F. D.

MACHINE CERTIFICATE
 WRITTEN 23-12-18
 + copy TUE AUG 17 1920
 TUE 16 APR 1919
 Lloyd's Register Foundation
 FRI. APR. 16 1920

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)