

REPORT ON MACHINERY

No. 1571

FRI. 11 OCT. 1918

REC'D NEW YORK Sept. 11-1918.

Received at London Office

of writing Report Sept 1 1918 When handed in at Local Office Sept. 6 1918 Port of Montreal

in Survey held at Montreal Date, First Survey Jan. 31. 1914 Last Survey July. 26. 1918

Book. on the S.S. "Sammanger" (Number of Visits August)

Master J. Evans. Built at Montreal By whom built Canadian Packers Ltd. Tons { Gross 4305.27 Net 2583.83 When built 1918

Machinery made at Montreal By whom made Canadian Packers Ltd when made 1918

Engines made at Montreal By whom made Canadian Packers Ltd when made 1918

Registered Horse Power 219.83 Owners Knut Larssen (Furnas Wilby & Co Nyrø) Port belonging to Montreal

Net Horse Power as per Section 28 337 333 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

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

No. of Cylinders 25"-41"-67" Length of Stroke 45" Revs. per minute 70 Dia. of Screw shaft as per rule 13.95" Material of S as fitted 14.25" screw shaft

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 Yes

If the liner is in more than one length are the joints burned No 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 Yes If two

are fitted, is the shaft lapped or protected between the liners Lines nearly bulled space fitted with Length of stern bush 4'9"

as per rule 12.4" Dia. of Crank shaft journals as per rule 13.13" Dia. of Crank pin 13 3/4" Size of Crank webs 8 1/2" x 24 1/2" Dia. of thrust shaft under 13 1/4" Dia. of screw 14'0" Pitch of Screw 14'0" No. of Blades 4 State whether moveable No Total surface 88 sq

of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes

of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes

of Donkey Engines 1 7/8 hp Sizes of Pumps 7 1/2 x 6 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps 7 x 9 x 10

Engine Room 1-4" 1-4" 1-6" 1-4" In Holds, &c. 7 Pk. 1-3" No. 1. Hold. 1-3 1/2" 2-3" No. 2. 1-4" 2-3" No. 3. 1-4" 2-3"

of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 1-6"

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 Valves

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

How are they protected None How are they protected Yes

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

Dates of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top E.R. platform

MILERS, &c.—(Letter for record S) Manufacturers of Steel Carnegie Steel Co Illinois Steel Co

Total Heating Surface of Boilers 5200 sq Is Forced Draft fitted No No. and Description of Boilers 2 Scotch Type 2 SB

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14-5-18 No. of Certificate 18

Can each boiler be worked separately Yes Area of fire grate in each boiler 69 sq No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 8.29 sq Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13" Mean dia. of boilers 16.0" Length 11.3" Material of shell plates S

Thickness 1 5/16" Range of tensile strength 28-32 TONS Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S

Long. seams S Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 8 3/4" Lap of plates or width of butt straps 19 1/2"

Percentages of strength of longitudinal joint rivets 87 1/2% Working pressure of shell by rules 185 lbs Size of manhole in shell 16" x 12" plate 85 1/2%

Size of compensating ring 35" x 39 1/2" No. and Description of Furnaces in each boiler 3 Morrison Material S Outside diameter 4.2 1/4"

Length of plain part top 19 3/2" Thickness of plates crown 19 3/2" Description of longitudinal joint Weld No. of strengthening rings — bottom 19 3/2"

Working pressure of furnace by the rules 189 lbs Combustion chamber plates: Material Yes Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 7 1/2" x 9" Back 8" x 8 1/4" Top 7 1/2" x 9" Are stays fitted with nuts or riveted heads Yes Working pressure by rules 195

Material of stays S AREA Diameter at smallest part 1.76 sq Area supported by each stay 67.5 sq Working pressure by rules 208 End plates in steam space: 150

Material S Thickness 1 1/2" Pitch of stays 18" x 16" How are stays secured Stitch and nut Working pressure by rules 195 Material of stays S

AREA Diameter at smallest part 6.288 sq Area supported by each stay 288 sq Working pressure by rules 190 Material of Front plates at bottom S

Thickness 1 3/16" Material of Lower back plate S Thickness 1 3/16" Greatest pitch of stays 13 1/2" x 8 1/4" Working pressure of plate by rules 275

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 1 3/16" Back 3/4" Mean pitch of stays 9 1/2" x 9 1/2"

Pitch across wide water spaces 14 1/2" Working pressures by rules 223 Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 10" x 3 1/4" Length as per rule 32" Distance apart 9" Number and pitch of stays in each 3-7 1/2"

Working pressure by rules 228 Superheater or Steam chest; how connected to boiler — Can the superheater be shut off and the boiler worked

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

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 —

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

Now fitted on WYVOCOTE
Report attached to No. 53190
No. 19 TEST
4.10.18
W.V.A.
14-5-18
Mark
The original Donkey bolts of this vessel
Note.

VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description		When made	Where fixed
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
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
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
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:— 1 Tail shaft. One section crank shaft 1 set of springs for safety valves.
 1 C.I. propeller, 2 bottom end bolts, 2 top end bolts. 2 M.B. bolts. 1 set connecting bolts. 1 set feed & bilge pump valves & gauge glass
 200 assorted bolts & nuts. 1 set check valves. 6 yoke cover bolts. 4 valve chest bolts. 3 biton stay tubes. 12 plain tubes. 24 condenser tubes
 50 ferrules 3 link choppers 6 piston bolts & nuts. 2 plates iron & brass iron 1 set of fire bars 1 set of piston springs

The foregoing is a correct description,

Manufacturer.

FOR CANADIAN WORKERS LIMITED

A. Miller
 General Manager

Dates of Survey while building	During progress of work in shops	1917 Jan. 31, Feb. 16, Mar. 13, 19, 20, 22, April 7, 12, 16, 20, 25, 27, May 5, 7, 15, 19, June 3, Aug. 28, Sept. 14, Oct. 30, Nov. 9, 16, 20, 23, 27, Dec. 3, 6, 7, 11, 13, 31, 1918 Jan. 2, 4, 7, 10, 12, 15, 18, 21, 26, 28, 30, Feb. 1, 4, 7, 13, 15, 19, 21, 25, 27, Mar. 15, 18, 22, 26, April 1, 8, 10, 17, 25
	During erection on board vessel	Aug. 5, 7, 9, 13, 17, 18, 21, 24, 26
	Total No. of visits	72.

Is the approved plan of main boiler forwarded herewith *No*

" " " donkey " " " *No.*

Dates of Examination of principal parts	Cylinders	5-5-17 16-11-17	Slides	8-5-18	Covers	8-4-18	Pistons	10-4-18	Rods	10-4-18	
Connecting rods	7-1-18	Crank shaft	13-12-17	Thrust shaft	2-1-18	Tunnel shafts	4-2-18	Screw shaft	10-1-18	Propeller	10-1-18
Stern tube	25-7-18	Steam pipes tested	13-8-18	Engine and boiler seatings	9-8-18	Engines holding down bolts	17-8-18				
Completion of pumping arrangements	24-8-18	Boilers fixed	9-8-18	Engines tried under steam	18-8-18						
Main boiler safety valves adjusted	Aug. 18, 1918.	Thickness of adjusting washers	Stn 1 1/2 in. P 1/2 B 5 1/2" P 1/2 B 5 1/2"	Stn 2 1/2 in. P 5/16 F 5 1/2"							
Material of Crank shaft	S	Identification Mark on Do.	2-8-17	Material of Thrust shaft	S	Identification Mark on Do.	21-5-17				
Material of Tunnel shafts	S	Identification Marks on Do.	1-2-17	Material of Screw shafts	S	Identification Marks on Do.	1-2-17				
Material of Steam Pipes	S		18-4-17	Test pressure	540 lbs per sq"						

General Remarks (State quality of workmanship, opinions as to class, &c.) The engines and boilers of this vessel have been constructed under Special Survey and in accordance with the rules. The materials and workmanship are good. The machinery has been efficiently fitted on board & has been tried under steam together with the auxiliary machinery and found to be working satisfactorily. The safety valves have been adjusted under steam & blow at a pressure of 185 lbs per sq in. The boilers are of good workmanship and the material has been tested in accordance with the rules. They were tested to a water pressure of 360 lbs per sq in and found tight. In my opinion the Machinery of this vessel is now in good and efficient condition and is eligible in my opinion to be classed in the Register Book and to have the Station **ELMC8-1**. The joints of the liner on the tail shaft to be examined when shaft is drawn.

This Machinery is a duplicate of that in the S. It is permitted that this vessel is eligible for THE RECORD. + LMC 8.18
 SUBJECT TO THE SCREW SHAFT BEING SPECIALLY EXAMINED EVERY TWO YEARS

The amount of Entry Fee	£ 15.00	When applied for.	
Special	£ 183.25	When received.	Aug. 29, 1918
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£ 13.25		

H. J. Alderson
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

FRI. 25 OCT. 1918

Committee's Minute
 Assigned
 TUE. 15 OCT. 1918
 + L.M.C. 8.18
 Machinery Certificate
 15/10/18



Certificate (if required) to be sent to Montreal

S.S. The ... with a ... The ... This ... to the ... carry ... the ...