

REPORT ON MACHINERY.

REC'D NEW YORK Dec 12 1919

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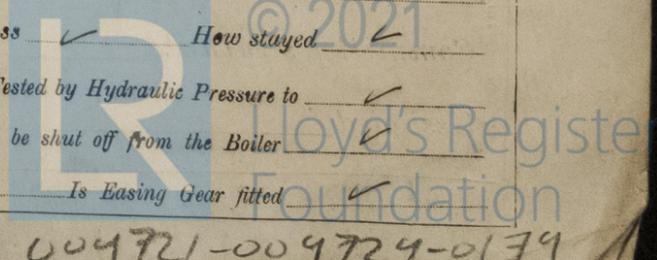
No. in Survey held at Montreal Date, First Survey Jan 22 Last Survey Dec 6 1919
Reg. Book. on the S.S. "CANADIAN SPINNER" (Number of Visits 52)

Master J. Reith Built at Montreal By whom built Canadian Vickers Ltd. Tons Gross 5404 Net 3330
Engines made at Montreal By whom made Canadian Vickers Ltd. When built 1919
Boilers made at Montreal By whom made Canadian Vickers Ltd. when made 1919
Registered Horse Power 266.5 Owners Canadian Government Port belonging to Montreal
Nom. Horse Power as per Section 28 520 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Triple Expansion Supercondensing No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27"-44"-73" Length of Stroke 48" Revs. per minute 75 Dia. of Screw shaft as per rule 14.57 Material of S
Is the screw shaft fitted with a continuous liner the whole length of the stern tube. Yes 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 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 5'6 1/2"
Dia. of Tunnel shaft as per rule 13.3" as fitted 14.5" Dia. of Crank shaft journals as per rule 13.96" as fitted 14.5" Dia. of Crank pin 14.5" Size of Crank webs 52x28x9" Dia. of thrust shaft under
collars 14.5" Dia. of screw 18'0" Pitch of Screw 15'9" No. of Blades 4 State whether moveable Yes Total surface 95 sq
No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 4 Sizes of Pumps 2 1/2" x 7" x 18" 3 1/2" x 7" x 18" 4 1/2" x 7" x 18" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2-3 1/2" In Holds, &c. Ballast 1-3" 1-4" 1-5" 2-3" 2-3" P. 2-3" S. 1-4" 2-3"
No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2-4"
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 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
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top E.R. Platform

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Lukens Iron & Steel Co. Penn. U.S.A.
Total Heating Surface of Boilers 7743 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Scotch type
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14-5-19 No. of Certificate 59.
Can each boiler be worked separately Yes Area of fire grate in each boiler 66.12 sq ft No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 8.3 sq in Pressure to which they are adjusted 184 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 16 in Mean dia. of boilers 15'6" Length 11'6" Material of shell plates S
Thickness 1 3/8" Range of tensile strength 26-28 TONS Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams DR
long. seams DBS. TR Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 3/8" Lap of plates or width of butt straps 19 7/8"
Per centages of strength of longitudinal joint rivets 87.4 plate 85.0 Working pressure of shell by rules 183 Size of manhole in shell 16x12"
Size of compensating ring 37 1/2" x 29" No. and Description of Furnaces in each boiler 3 Highlow Material S Outside diameter 4'2 1/4"
Length of plain part top bottom Thickness of plates crown bottom 17/32" Description of longitudinal joint Weld No. of strengthening rings
Working pressure of furnace by the rules 187 Combustion chamber plates: Material S Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 15/16"
Pitch of stays to ditto: Sides 9" x 7 1/2" Back 8 1/2" x 8" Top 9" x 7 1/2" If stays are fitted with nuts or riveted heads Stub Working pressure by rules 197
Material of stays S Area at smallest part 1.76 sq in Area supported by each stay 68.6 sq in Working pressure by rules 230 End plates in steam space:
Material S Thickness 1 1/2" Pitch of stays 18" x 15" How are stays secured Stub Working pressure by rules 184 Material of stays S
Area at smallest part 5.27 sq in Area supported by each stay 270 sq in Working pressure by rules 204 Material of Front plates at bottom S
Thickness 1 3/8" Material of Lower back plate S Thickness 1 3/8" Greatest pitch of stays 13 1/2" x 8 1/2" Working pressure of plate by rules 187
Diameter of tubes 3 Pitch of tubes 4 1/2" Material of tube plates S Thickness: Front 1 3/8" Back 3/4" Mean pitch of stays 8 1/2" x 8 1/2"
Pitch across wide water spaces 13 1/2" Working pressures by rules 205 Girders to Chamber tops: Material S Depth and
thickness of girder at centre 10" x 1 1/2" Length as per rule 2' 6 7/8" Distance apart 9" Number and pitch of stays in each 3-4 1/2"
Working pressure by rules 250 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? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 connecting rod caps and bolts & nuts	1 set of Main & Donkey feed checks	2 Bronze propeller blades
2 " " " "	6 byl cover studs & nuts	1 H.P. piston valve
2 main bearing bolts & nuts	6 stem valve chest studs & nuts	1 set each H.P. & J.P. piston rings
6 connecting bolts & nuts	1/2 Junk ring studs & nuts	Boiler tubes 18 ordinary & 6 stay
1 set of Feed pump valves	Assorted bolts & nuts	36 condenser tubes & 50 ferrules
1 set of Ridge pump valves	bars round & flat iron	1 set of fire bars for one boiler

The foregoing is a correct description,

M. Miller

Manufacturer.

Dates of Survey while building

During progress of work in shops --	Jan. 22, Feb. 7, 17, 25, 28, Mar. 7, 10, 21, 28, Apr. 3, 9, 14, 25, 30, May 3, 6, 10, 14, 19, 27, 29, July 16, 18, 25, Aug 6, 12, 19, 27, 28, Sept.
During erection on board vessel ---	Nov. 12, 15, 17, 21, 25, 28, Dec. 23, 24, 6.
Total No. of visits	52

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

Dates of Examination of principal parts—Cylinders *10-5-19* Slides *16-10-19* Covers *16-10-19* Pistons *14-10-19* Rods *14-10-19*

Connecting rods *3-10-19* Crank shaft *25-4-19* Thrust shaft *3-4-19* Tunnel shafts *29-5-19* Screw shaft *22-8-19* Propeller *22-8-19*

Stern tube *3-10-19* Steam pipes tested *27-11-19* Engine and boiler seatings *10-11-19* Engines holding down bolts *22-11-19*

Completion of pumping arrangements *4-12-19* Boilers fixed *14-11-19* Engines tried under steam *3-12-19*

Completion of fitting sea connections *6-11-19* Stern tube *4-11-19* Screw shaft and propeller *6-11-19*

Main boiler safety valves adjusted *1-12-19* Thickness of adjusting washers *P. 1778 S. 564 P. 477 S. 656 P. 962 S. 753*

Material of Crank shaft *S.* Identification Mark on Do. *O.T.J.* Material of Thrust shaft *S.* Identification Mark on Do. *O.T.*

Material of Tunnel shafts *S.* Identification Marks on Do. *O.T.J.* Material of Screw shafts *S.* Identification Marks on Do. *O.T.*

Material of Steam Pipes *S.* Test pressure *540 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 *C. Pioneer* *Champion* *Ranger* & *C. Miller*

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

The engines & boilers of this vessel have been constructed under special survey and in accordance with the rules. The materials & workmanship are good. They have been fitted on board together with the auxiliary machinery and run out under full working conditions with satisfactory results.

The boilers are of good workmanship and the material has been tested in accordance with the rules. They have been tested with water pressure of 360 lbs and found right. The safety valves have been adjusted under steam & blow at a pressure of 185 lbs.

In my opinion the machinery of this vessel is in good and efficient condition eligible to be declared in the Register Book of the Society and to have the record of L.M.C. 12-19.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 12. 19. F.D.

J.W.D. *W.H.H.* 30/12/19 *J.R.S.*

The amount of Entry Fee ...	£ 15.00	When applied for,
Special ...	£ 230.00	Dec. 9 1919
Donkey Boiler Fee ...	£ 9.00	When received,
Travelling Expenses (if any) £	:	15/12/19

N.J. Alderson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI JAN 2 - 1920
L.M.C. 12. 19

F.D.



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Lloyd's Register Foundation

Rpt. 13.

REP

Port of *Mo*

No. in Reg. Book on the Built

Owners *Can*

Yard No. *71*

DESCRIPTION OF

10K.W.

Lubrication

Capacity of Dynamo

Where is Dynamo

Position of Main S

Positions of auxili

If fuses are fitted

circuits *Y*

If vessel is wired

Are the fuses of

Are all fuses fitted

are permanent

Are all switches an

Total number of li

A *Food Account*

B *Off*

C *Navigation*

D *E & B Room*

E *Cargo operations*

Mast head

2 Sides

If arc lights, what

Where are the sw

DESCRIPTION OF

Main cable carrying

Branch cables carr

Branch cables carr

Leads to lamps carr

Cargo light cables ca

DESCRIPTION OF

Rubber insu

Joints in cables, ho

No joints

Are all the joints of

positions, non

Are there any joint

How are the cables

Certificate (if required) to be sent to Committee's Minute.

The Surveyors are requested not to write on or below the space for Committee's Minute.