

Rpt. 4.

REPORT ON MACHINERY

No. 1887

Date of writing Report Dec. 3, 1920 When handed in at Local Office March 7, 1921 Port of Montreal
 Received at London Office TUE. 22 MAR. 1921
 No. in Survey held at Three Rivers P.2. Date, First Survey Nov. 1, 1919. Last Survey July 26th, 1920
 Reg. Book. 52797 on the S.S. "CANADIAN FORESTER" (Number of Visits 38)

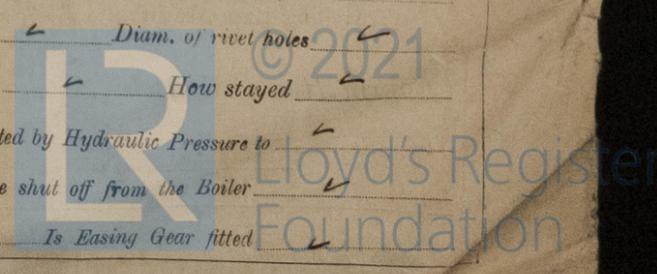
Master J.P. Coffin Built at Three Rivers P.2. By whom built Lidewater Shipbuilders Ltd. Tons { Gross 3550
 Net 2158
 Engines made at Three Rivers P.2. By whom made Lidewater Shipbuilders Ltd. When built 1920
 Boilers made at " " " By whom made " " " when made 1920
 Registered Horse Power 226.5 Owners Canadian Government Port belonging to Montreal
 Nom. Horse Power as per Section 28 470 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c. — Description of Engines Triple Expansion, Surface Condensing No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 25-41-68 Length of Stroke 45 Revs. per minute 80 Dia. of Screw shaft as per rule 13.25 Material of screw shaft 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 Yes 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 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5'2"
 Dia. of Tunnel shaft as per rule 12.4 Dia. of Crank shaft journals as per rule 13.00 Dia. of Crank pin 13.25 Size of Crank webs as fitted 12.75 Dia. of thrust shaft under bars 13.25 Dia. of screw 16'0" Pitch of Screw 15'9" No. of Blades 4 State whether moveable No Total surface 84 sq
 No. of Feed pumps 2 Diameter of ditto 3.5 Stroke 24 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3.5 Stroke 24 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 5 Sizes of Pumps GEN. SER. 9 1/2 x 7 x 18. BALLAST. FW. 7 x 5 x 12. SANITARY. 5 1/2 x 6 x 15 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4-3" 1-3 1/2" In Holds, &c. BALLAST. FW. 1-3 1/2" NO. 1. TANK 2" NO. 2. 3-4" NO. 3. P.2-3 1/2" S. 2-3 1/2"
 No. of Bilge Injections 1 sizes 8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 1-4"
 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
 That 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 Upper deck.

MANUFACTURERS, &c. — (Letter for record S.) Manufacturers of Steel Armstrong Steel & Ordnance Co.
 Total Heating Surface of Boilers 7275 sq Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended Scotch type.
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 27-9-20 No. of Certificate 78
 Can each boiler be worked separately Yes Area of fire grate in each boiler 52 sq No. and Description of Safety Valves to each boiler 2 Spring loaded 3 1/2 in Area of each valve 9.62 sq Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 13 Mean dia. of boilers 13'9 1/2" Length 11'6" Material of shell plates S
 Thickness 1 1/4" Range of tensile strength 28-32 TONS Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R
 Long. seams BBS TR Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8.65" Lap of plates or width of butt straps 19"
 Percentages of strength of longitudinal joint: rivets 84.5 Working pressure of shell by rules 202 Size of manhole in shell 16" x 12"
 Diameter of compensating ring 29" x 33" No. and Description of Furnaces in each boiler 3 Morrison Material S Outside diameter 43 1/2"
 Length of plain part: top — bottom — Thickness of plates: crown 9/16" bottom 9/16" Description of longitudinal joint Weld No. of strengthening rings —
 Working pressure of furnace by the rules 202 Combustion chamber plates: Material S Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 7/16"
 Diameter of stays to ditto: Sides 9" x 8" Back 8 3/4" x 8 1/4" Top 9" x 7 3/4" If stays are fitted with nuts or riveted heads Both Working pressure by rules 206
 Material of stays S Area at smallest part 1.768 sq Area supported by each stay 75.46 sq Working pressure by rules 210 End plates in steam space: Material S Thickness 1/16" Pitch of stays 17" x 14" How are stays secured Both Working pressure by rules 185 Material of stays S
 Area at smallest part 5.23 sq Area supported by each stay 289 sq Working pressure by rules 188 Material of Front plates at bottom S
 Thickness 1/16" Material of Lower back plate S Thickness 13/16" Greatest pitch of stays 12 3/4" x 8 3/4" Working pressure of plate by rules 191
 Diameter of tubes 2 3/4" Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates S Thickness: Front 13/16" Back 1/16" Mean pitch of stays 10 3/8" x 7 1/2"
 Distance across wide water spaces 12 1/2" Working pressures by rules 210 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2" x 1 1/2" Length as per rule 31 1/2" Distance apart 7 3/4" Number and pitch of stays in each 2-9
 Working pressure by rules 210 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 —
 Diameter 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 —
 No. 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 —

013950 - 013960 - 0174



IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

6 of cone studs & nuts	2 connecting rod top end bolts & nuts	1 Spare Propeller	3 Main check valves
6 pins " "	2 " " " " " "	12 Valve stoppers	30 Hoses " "
Beland deck " "	2 Main bearings " "	120 Fire bars	15 Boiler Lutes
12 Gun ring " "	3 Crank shaft coupling " "	12 King bars	2 safety valve springs.
1- H.P. piston valve.	30mmel " " " "	1 set of air pump valves	
25 condenser tubes 50 ferrules	1 set of Feed pump valves	1 set of spares for each of 5 Main's Pumps	
	1 " " " " " "		

The foregoing is a correct description,

Tidewater Shipbuilders Ltd
Doverman Manufacturer.

Dates of Survey while building	During progress of work in shops --	1919 Nov. 1-10-20-27	1920 Jan. 20	Feb. 18-23	Mar. 10, 17, 24-30	April 7-15	May 19-28	Jun. 4-10-16-23	July 1-6
		22 Aug. 5-12-19		Apr. 1-8/17					
		During erection on board vessel ---		1920. Sept. 22-27-28	Oct. 16-26	Nov. 13-24	1921. Apr. Feb. 26.		
	Total No. of visits	38							

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 1-6-20 Slides 29-10-19 Covers 1-6-20 Pistons 3-5-20 Rods 2-7-20
 Connecting rods 2-7-20 Crank shaft 10-3-20 Thrust shaft 10-3-20 Tunnel shafts 5-8-20 Screw shaft 28-9-20 Propeller 28-9-20
 Stern tube 17-9-20 Steam pipes tested 3-6-20 12-10-20 Engine and boiler seatings 28-9-20 Engines holding down bolts 26-10-20
 Completion of pumping arrangements 24-11-20 Boilers fixed 16-10-20 Engines tried under steam 24-11-20
 Completion of fitting sea connections 16-9-20 Stern tube 17-9-20 Screw shaft and propeller 16-10-20
 Main boiler safety valves adjusted Feb. 26th 1921. Thickness of adjusting washers P.P. 9/16, P.S. 1/16, C.P. 5/8, C.S. 1/16, S.P. 1/16, S.S. 5/8
 Material of Crank shaft *S.* Identification Mark on Do. *W.V.S* Material of Thrust shaft *S* Identification Mark on Do. *W.V.S*
 Material of Tunnel shafts *S* Identification Marks on Do. *W.V.S* Material of Screw shafts *S.* Identification Marks on Do. *W.V.S*
 Material of Steam Pipes *Steel & copper* Test pressure *Steel 540 lbs copper 360 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 *CANADIAN TRAPPER HUNTER SETTLER RANCHER FISHER.*

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

This Machinery has been constructed under special survey and in accordance with the approved plans. It has been fitted on board and tried out under full working conditions together with the auxiliary machinery with satisfactory results. The materials and workmanship are good.

The safety valves have been adjusted under steam to blow at 185 lbs.

In my opinion this machinery is in good and efficient condition and is to be classed in the Register book of the Society and the have the record of L.M.C. 2-21.

The foregoing reports accompanying this report cover the engines fitted in the Canadian Hunter " Rancher " Fisher " Fisher.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 2.21 FII. CL

Rell 1/4/21 *FRB*

The amount of Entry Fee ...	£ 25 ⁰⁰	When applied for, Mar. 8 1921
Special ...	£ 477 ⁵⁰	
Donkey Boiler Fee ...	£ —	When received, May 16 1921
Travelling Expenses (if any) £	187 ⁰⁰	

H. J. Alderson *J. Moon*
Engineer-Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 1 APR. 1921**

Assigned *+ L.M.C. 2.21* *F.D., C.L.*

CERTIFICATE WRITTEN

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Certificate (if required) to be sent to

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