

Rpt. 4.

REPORT ON MACHINERY

No. 1887

Date of writing Report Dec. 3, 1920

When handed in at Local Office March 7, 1921

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 Feb. 26, 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 Tidewater Shipbuilders Ltd.

Gross 3550
Tons Net 2158

Engines made at Three Rivers P.2.

By whom made Tidewater 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 13.476

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 5'2"

Dia. of Tunnel shaft as per rule 12.4

as fitted 12.75

Dia. of Crank shaft journals as per rule 13.10

as fitted 13.25

Dia. of Crank pin 13.25

Size of Crank webs

Dia. of thrust shaft under

lars 13.25 Dia. of screw 16'0" Pitch of Screw 15'9"

No. of Blades 4

State whether moveable No

Total surface 84 ft

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 8. 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 2-4" 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

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

Total Heating Surface of Boilers 7275 ft

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 ft

No. and Description of Safety Valves to

Each boiler 2 Spring loaded 3 1/2 in

Area of each valve 9.62 ft

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

g. 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"

No. 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

Thickness of plates crown

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"

Pitch of stays to ditto: Sides 9' x 8"

Back 8 3/4' x 8 3/4"

Top 9' x 7 3/4"

If stays are fitted with nuts or riveted heads

Working pressure by rules 206

Material of stays S

Area at smallest part 1.768 ft

Area supported by each stay 75.46 ft

Working pressure by rules 210

End plates in steam space:

Material S

Thickness 1 1/16"

Pitch of stays 17' x 14"

How are stays secured

Working pressure by rules 185

Material of stays S

Area at smallest part 5.23 ft

Area supported by each stay 289 ft

Thickness 3/16"

Material of Lower back plate S

Thickness 3/16"

Greatest pitch of stays 12 3/4' x 8 3/4"

Working pressure of plate by rules 191

Material of tube plates S

Thickness: Front 13/16"

Back 1/16"

Pitch of tubes 2 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"

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

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted

Is Easing Gear fitted

meter of Safety Valve

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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 cyl. main studs & nuts	2 connecting rods top end both cranks	1 Spare Propeller	3 Main check valves
6 pistons	2 " " " "	12 Valve shippers	30 Hoses
12 main bearings	2 Main bearings	120 Fire bars	15 Boiler Lugs
12 crank pin bearings	3 crank shaft coupling	12 Ring bars	2 safety valve springs
1- H.P. piston valve	3 Tunnel " " "	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 Pumps	
	1 " " " "		

The foregoing is a correct description,

Tide Water Shipbuilders Ltd
Danversham *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
	During erection on board vessel --	22 Aug. 5-12-19	Sept. 1-8-17					
	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. $\frac{9}{16}$, P.S. $\frac{10}{16}$, C.P. $\frac{5}{8}$, C.S. $\frac{11}{16}$, S.P. $\frac{19}{16}$, S.S. $\frac{5}{8}$
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 name the record of L.M.C. 2-21.

The foregoing report accompanying this report covers the engines fitted in the Canadian Hunter

" Hunter
" Fisher
" Fisher.

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

R.M.
1/4/21

J.R.

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

21/6/21, present

Committee's Minute FRI. 1 APR. 1921

Assigned + L.M.C. 2.21

CERTIFICATE WRITTEN

F.D., C.L.

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



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