

pt. 4.

REPORT ON MACHINERY.

No. 841

Received at London Office WED. FEB. 2 1921

Date of writing Report 23 December 1920 When handed in at Local Office 6 January 1921 Port of Vancouver BC
Date, First Survey 18 July 1919 Last Survey 19 December 1920
(Number of Visits 28)

No. in Survey held at Victoria BC
Reg. Book. on the Steel Single Screw Steamer "CANADIAN WINNER" Tons { Gross 5482.34
Net 3374.92

Master W. Wingate Built at Victoria BC By whom built Harbour Marine Ltd When built 1920

Engines made at Toronto By whom made The John Inglis Co. Ltd when made 1920
Boilers made at Victoria BC By whom made The Victoria Machinery Depot when made 1920
Registered Horse Power 3000 Owners Canadian Merchant Marine Port belonging to Montreal

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
Nom. Horse Power as per Section 28 521

ENGINES, &c.—Description of Engines Propped triple expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27.44, 73 Length of Stroke 48 Revs. per minute 83 Dia. of Screw shaft as per rule 14.63 Material of screw shaft O.H.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
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 13.3 Dia. of Crank shaft journals as per rule 13.97 Dia. of Crank pin 14.5 Size of Crank webs 9x28 Dia. of thrust shaft under
collars 14.5 Dia. of screw 17.6 Pitch of Screw 15.96 No. of Blades 4 State whether moveable no Total surface 95.5

No. of Feed pumps 3 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes
No. of Bilge pumps 3 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes

No. of Donkey Engines 6 Sizes of Pumps 10 1/2 x 14 x 24 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2 off 5" 2 off 4" 2 off 3 1/2" in boiler room In Holds, &c. 2 off 3 1/2" in No. 1-2 + 3 Holds
1 off 4" in hold and 1 off 3" in Tunnel bell 14 in all.

No. of Bilge Injections 1 sizes 9" Connected to condenser or circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes

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 and Cocks

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 yes

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 Bilge pipes How are they protected Wood covers

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 Engine Room & Upper Deck

OILERS, &c.—(Letter for record 3-20) Manufacturers of Steel Carnegie Steel Co. Illinois Steel Co.

Total Heating Surface of Boilers 7743 Is Forced Draft fitted yes No. and Description of Boilers 3 Cylindrical multitubular
Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 9-9-20 No. of Certificate 1 boiler No. 37

Can each boiler be worked separately yes Area of fire grate in each boiler 66.12 No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 9.62 Pressure to which they are adjusted 180 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 15'-6" Length 11'-6" Material of shell plates O.H.S.

Thickness 1-3/16 Range of tensile strength 28 to 32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
long. seams Triple Diameter of rivet holes in long. seams 1-3/16 Pitch of rivets 9-187 Top of plates or width of butt straps 20

Per centages of strength of longitudinal joint rivets 87.4 Working pressure of shell by rules 200 Size of manhole in shell 12 x 16
plate 85

Size of compensating ring 37.5 x 33 No. and Description of Furnaces in each boiler 3 corrugated Material O.H.S. Outside diameter 50.25

Length of plain part top 19/32 Thickness of plates bottom 19/32 Description of longitudinal joint yes No. of strengthening rings yes

Working pressure of furnace by the rules 187 Combustion chamber plates Material O.H.S. Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 15/16

Pitch of stays to ditto: Sides 7.5 x 9 Back 8 x 8.25 Top 9 x 7.5 If stays are fitted with nuts or riveted heads both Working pressure by rules 200

Material of stays O.H.S. Area at smallest part 1.76 Area supported by each stay 66 Working pressure by rules 210 End plates in steam space:
Material O.H.S. Thickness 1 1/16 Pitch of stays 18 x 15 How are stays secured 2 nuts Working pressure by rules 185 Material of stays O.H.S.

Area at smallest part 5.27 Area supported by each stay 270 Working pressure by rules 270 Material of Front plates at bottom O.H.S.

53

SUPERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to 2020
Date of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
Diameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

IS A DONKEY BOILER FITTED? *NO*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two Connecting Rod top & bottom end bolts & nuts. Two main bearing bolts & nuts. Six coupling bolts & nuts. One set of Feed and one set of bilge pump Valves. Three main & three donkey feed check Valves. Six cylinder & one steam chest cover studs & nuts. Twelve junk ring studs & nuts. Two propeller blades. One H.P. piston Valve. Condenser tube & ferrules. Porter tubes. Whirl metal, a number of assorted bolts and nuts, round & flat iron & rivets.*

The foregoing is a correct description,

Victoria Machinery Depot. Allan Craig Manufacturer.

Dates of Survey while installing: During progress of work in shops -- *ad Victoria Machinery Depot. Victoria B.C. 1920 July 15, 27, Aug 5, 10, 13, 16, 18, 21, Sept 2, 9, 15, 21, 22, Oct 5, 28, 29, Nov 4, 11, 15, 24, 25, Dec 14*
During erection on board vessel ---
Total No. of visits *28*

Is the approved plan of main boiler forwarded herewith? *Y*

Dates of Examination of principal parts—Cylinders *13 Aug 1920* Slides *13 Aug 1920* Covers *2nd Septem* Pistons *2nd Septem* Rods *2nd Septem*
Connecting rods *2nd Septem* Crank shaft *5 October* Thrust shaft *5 October* Tunnel shafts *5 October* Screw shaft *10 June* Propeller *23 June*
Stern tube *10 June* Steam pipes tested *5th August* Engine and boiler seatings *21 Septem* Engines holding down bolts *21 Aug 19*
Completion of pumping arrangements *25 November* Boilers fixed *15 October* Engines tried under steam *25 November*

Completion of fitting sea connections *29 June* Stern tube *29 June* Port Boiler *29 June* Centre Boiler *29 June* Starboard Boiler *29 June*
Main boiler safety valves adjusted *25 November* Thickness of adjusting washers *P 9/16 S 5/8 P 3/8 S 13/32 P 9/16 S 5/8*

Material of Crank shaft *OHS* Identification Mark on Do. *15-7-20 AS* Material of Thrust shaft *OHS* Identification Mark on Do. *15-7-20 AS*

Material of Tunnel shafts *OHS* Identification Marks on Do.

LLOYDS	LLOYDS	LLOYDS	LLOYDS	LLOYDS	LLOYDS
15-7-20	15-7-20	15-7-20	15-7-20	15-7-20	15-7-20
AS	AS	AS	AS	AS	AS

 Material of Screw shafts *OHS* Identification Marks on Do. *15-7-20 AS*

Material of Steam Pipes *OHS* Identification Marks on Do.

LLOYDS	LLOYDS	LLOYDS	LLOYDS	LLOYDS	LLOYDS
15-7-20	15-7-20	15-7-20	15-7-20	15-7-20	15-7-20
AS	AS	AS	AS	AS	AS

 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? If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engines & boilers of this Vessel have been built under special survey and installed under special survey in accordance with the approved plans together with the auxiliaries, pumps, piping mountings and sea connections. The material and workmanship are of good quality. On the completion of the machinery installation the Vessel was tried under full steam at sea & found satisfactory.*

Please refer to Toronto report N° 158 on survey of main engine & maker also to report N° 149 on survey of three main boilers before riveting. The tail shaft is fitted with a continuous line.

The safety valves have been floated independently & set at 180^{lb}. The machinery & boilers are eligible in my opinion to have record + LMC 12-20 made in the Register Book in the case of this Vessel.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 12. 20 FD.

CL *Recl* *8/2/21*

The amount of Entry Fee ... *\$15:00* : When applied for,
Special ... *\$153:50* : *7 Jan 19 21*
Donkey Boiler Fee ... *6* : When received,
Travelling Expenses (if any) *\$74:20* : *12 May 19 21*

C. Astie & Fran Edwards
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 1 APR. 1921*
Assigned *+ LMC 12. 20*

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

CERTIFICATE WRITTEN

