

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

3 JAN 1944

Date of writing Report **9th Nov. 1943** When handed in at Local Office **9th Nov. 1943** Port of **Vancouver, B. C.**

No. in Survey held at **Vancouver, B. C.** Date, First Survey **6th August, 1943** Last Survey **29th October 1943**
Reg. Book. (Number of Visits **21**)

on the **Steel Single Screw Steamer, "FORT VENANGO"** Tons {Gross **7166.14**
Net **4251.43**

Built at **Vancouver, B. C.** By whom built **Burrard Dry Dock Co. Limited** Yard No. **189** When built **1943**

Engines made at **Montreal, Quebec.** By whom made **Canadian Allis-Chalmers Company Limited** Engine No. **247** When made **1943**

Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd** Boiler Nos **533&534** When made **1943**

Registered Horse Power **229** Owners **Minister of Munitions and Supply of Canada.** Port belonging to **--**

Nom. Horse Power as per Rule **643** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

Trade for which Vessel is intended **General Cargo**

ENGINES, &c.—Description of Engines **Triple expansion superheat to 450° F.** Revs. per minute **76**

Dia of Cylinders **24 1/2" x 37" x 70"** Length of Stroke **48"** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **13.99** as fitted **14 1/4"** Crank pin dia. **14 1/4"** Crank webs Mid. length breadth **--** Thickness parallel to axis **9 1/2" L.P.**

Intermediate Shafts, diameter as per Rule **13.33** as fitted **13.5** Thrust shaft, diameter at collars as per Rule **13.99** as fitted **14.25** Thickness around eye-hole **7 1/8" Pin**

Tube Shafts, diameter as per Rule **--** as fitted **--** Screw Shaft, diameter as per Rule **14.87** as fitted **15.25** Is the shaft fitted with a continuous liner? **Yes**

Bronze Liners, thickness in way of bushes as per Rule **.75"** as fitted **.78125** Thickness between bushes as per Rule **.565"** as fitted **.68"** Is the after end of the liner made watertight in the propeller boss? **Yes** If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner? **solid**

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? **tight fit**

If two liners are fitted, is the shaft lapped or protected between the liners? **--** Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft? **No** If so, state type **--**

Propeller, dia. **18'-6"** Pitch **16'0" mean** No. of Blades **4** Material **bronze** whether Moveable **solid** Total Developed Surface **117** sq. ft.

Feed Pumps worked from the Main Engines, No. **None** Diameter **--** Stroke **--** Can one be overhauled while the other is at work? **--**

Bilge Pumps worked from the Main Engines, No. **Two** Diameter **4 1/2"** Stroke **26"** Can one be overhauled while the other is at work? **Yes**

Feed {No. and size **Two- 12"x8"x24"** Pumps connected to the Main Bilge Line {No. and size **Four-(Two) 10"x11"x12"** Two Rams

Pumps {How driven **Steam Worthington Simplex** Main Bilge Line {How driven **Duplex Steam** M.E.

Ballast Pumps, No. and size **One 10"x11"x12" (duplex)** Lubricating Oil Pumps, including Spare Pump, No. and size **None**

Are two independent means arranged for circulating water through the Oil Cooler? **--** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **One 3" P&S; one 3" Thrust Recess; one 2 1/2" Tunnel Well; one 3" P&S Forward & Aft Cofferdams**

In Holds, &c. **One 3" P&S. Nos. 1.2.3.4.&5 Holds; one 4" P&S. No.1 & No.2 Deep Tanks; one 5" P&S. No.3 Deep Tanks**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **(One) 10"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **(Two) 5"** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes? **Yes**

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges? **Yes**

Are all Sea Connections fitted direct on the skin of the ship? **stands** Are they fitted with Valves or Cocks? **Yes**

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates? **Yes** Are the Overboard Discharges above or below the deep water line? **below**

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? **welded**

What Pipes pass through the bunkers? **None** How are they protected? **--**

What pipes pass through the deep tanks? **bilge and ballast air pipes** Have they been tested as per Rule? **Yes**

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times? **Yes**

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another? **Yes** Is the Shaft Tunnel watertight? **Yes** Is it fitted with a watertight door? **No** worked from **--**

MAIN BOILERS, &c.—(Letter for record **--**) Total Heating Surface of Boilers **9,704** sq. ft.

Which Boilers are fitted with Forced Draft? **Both** Which Boilers are fitted with Superheaters? **Both**

No. and Description of Boilers **Two- Babcock & Wilcox W.T.** Working Pressure **250** lbs. per square inch (Sp. 230.4)

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**

IS A DONKEY BOILER FITTED? **No** If so, is a report now forwarded? **--**

Can the donkey boiler be used for domestic purposes only? **--**

PLANS. Are approved plans forwarded herewith for Shafting **Approved plans in U.K.** Main Boilers **17.7.43** Auxiliary Boilers **--** Donkey Boilers **--**

(If not state date of approval) Superheaters **17.7.43** General Pumping Arrangements **6.7.43** Oil fuel Burning Piping Arrangements **9.7.43**

As fitted plan attached **SPARE GEAR.**

Has the spare gear required by the Rules been supplied? **Yes**

State the principal additional spare gear supplied **As per list forwarded with Vancouver Report No. 5942**

S.S. "FORT COLUMBIA"

The foregoing is a correct description

Burrard Dry Dock Company, Limited

Manufacturer.

[Signature]
President



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Lloyd's Register Foundation

See Montreal Report No. 5962.

During progress of work in shops - - - } 1943
 Dates of Survey while building } Aug.-6, 22 Sept.-22, 27, 29, 30 Oct.-7, 12, 13, 14, 15, 16, 20, 21, 22, 23, 25, 26, 27, 28
 During erection on board vessel - - - } and 29.
 Total No. of visits 21

Dates of Examination of principal parts
 Cylinders _____ Slides _____ Covers _____
 Pistons _____ Piston Rods _____ Connecting rods _____
 Crank shaft _____ Thrust shaft 14th October, 1943 Intermediate shafts 14th October, 1943
 Tube shaft _____ Screw shaft 6th August, 1943 Propeller 6th August, 1943
 Stern tube 6th August, 1943 Engine and boiler seatings 6th August, 1943 Engines holding down bolts 14th October, 1943.
 Completion of fitting sea connections 6th August, 1943
 Completion of pumping arrangements 20th October, 1943 Valves fixed 22nd Aug. 1943 Engines tried under steam 21st October, 1943.
 Main boiler safety valves adjusted 26th October, 1943 Compression P.Blr. F.1-7/32"-29/32" Star.Blr. F.1-5/32"-1"
 Crank shaft material O.H.Steel Identification Mark Lloyd's 9017 H.G.S. Thrust shaft material O.H.Steel Identification Mark Lloyd's 5109 H.G.S.
 Intermediate shafts, material O.G.Steel Identification Mark Lloyd's 8286 PWW 29-4-43 Identification Mark 8289 PWW 7-5-43 Identification Mark 8293 PWW 7-5-43
 Screw shaft, material O.H.Steel Identification Mark Lloyd's 4049 EER Steam Pipes, material S.D.Steel Test pressure 750 lbs. Date of Test 14th Oct. 1943
 Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes
 Have the requirements of the Rules for the use of oil as fuel been complied with Yes
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes If so, have the requirements of the Rules been complied with Yes
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with No
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "FORT COLUMBIA", Ver. Rpt. No. 5942.
 General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey of the Montreal. Surveyors and installed on board under special survey in accordance with approved plans, New York letters and otherwise in conformity with the Society's Rules. The materials and workmanship are good and the tests required by the Rules have been satisfactorily carried out. The whole installation has been examined and tested under full working conditions on sea trials and afterwards part opened out, examined and found satisfactory. The machinery has also been surveyed during construction and installation on behalf of the Wartime Merchant Shipping, Ltd., to ensure that the terms of the Specifications have been fully complied with and this work has been satisfactorily carried out.

The machinery of this vessel is eligible in our opinion to be classed in the Register Book with Notation of L.M.C.10,43, Screw Shaft C.L. 2 W.T. Blrs. (Spt) 250 lbs. per sq.in. F.D. Fitted for oil fuel 10,43. Flash point above 150°F.

Montreal fees charged in Montreal Rpt. No. 5962.

The amount of Entry Fee ... £	:	:	When applied for, <u>30th Oct. 43</u>
Special (Ver.) ... \$133.00	:	:	
Donkey Boiler Fee ... £	:	:	When received, <u>19</u>
Travelling Expenses (if any) \$20.00	:	:	

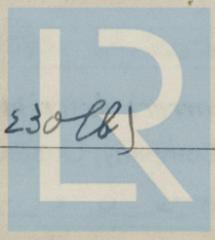
W.E. Brillie
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 7 JAN 1944

Committee's Minute

Assigned

+ LMC 10,43
 2 W.T. Blrs (Spt 250 lb)
 70 Cl.



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