

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

29 NOV 1944

Report being made on the **Steel Single Screw Steamer "FORT EDMONTON"** built at **Vancouver, B.C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **212** When built **1944**

Engines made at **Lachine, P.Q.** By whom made **Canadian Allis-Chalmers Co. Ltd.** Engine No. **368** When made **1944**

Boilers made at **Vancouver, B.C.** By whom made **Vancouver Iron Works Ltd.** Boiler No. **695-696** When made **1944**

Registered Horse Power **229** Owners **Minister of Munitions & Supply of Canada** Port belonging to **Canada**

Nom. Horse Power as per Rule **628** Is Refrigerating Machinery fitted for cargo purposes **Yes** Is Electric Light fitted **Yes**

Trade for which Vessel is intended **Refrigerated Victualling Ship**

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

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

Crank shaft, dia. of journals **14.21"** Crank pin dia. **14.21"** Crank webs **14.21"** Mid. length breadth **14.21"** Thickness parallel to axis **9" & 9" L.P.**

Intermediate Shafts, diameter **13.53"** Thrust shaft, diameter at collars **14.25"** Thickness around eye-hole **7" Pin**

Tube Shafts, diameter **13.5"** Screw Shaft, diameter **15.07"** Is the screw shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes **.75"** Thickness between bushes **.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 **Continuous**

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 **No** Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft **No**

Propeller, dia **18'-6"** Pitch **16'-0"** 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 **4"** Stroke **26"** Can one be overhauled while the other is at work **Yes**

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

Feed Pumps (No. and size **Two 12" x 8" x 24"** Pumps connected to the Main Bilge Line (No. and size **Four (Two) 10" x 11" x 12"** Two **4 1/2" Rams** M.E.)

How driven **Steam Worthington Simplex** Main Bilge Line (How driven **Duplex - Steam**

Ballast Pumps, No. and size **One-10" x 11" x 12" (Duplex)** Lubricating Oil Pumps, including Spare Pump, No. and size **None**

Are two independent means arranged for circulating water through the Oil Cooler **Yes** 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 for'd.**

In Pump Room **One 2 1/2" P&S after Cofferdam** In Holds, &c. **One 3" P&S Nos. 1, 2, 3, 4 & 5 Holds, One 5" P&S 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 **As approved**

Are all Sea Connections fitted direct on the skin of the ship **No: To cast steel 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 **Yes**

What pipes pass through the deep tanks **D.B. 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 **9704 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 lb. (Spt. 230 lb.)**

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? **Yes**

PLANS. Are approved plans forwarded herewith for Shaping 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.

President

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Lloyd's Register  
Foundation

007611-007614 0204



See Montreal Report No. 6141.

Dates  
of Survey  
while  
buildingDuring progress of  
work in shops - -  
During erection on  
board vessel - -

1944 March 16, 17 &amp; 27 April 3, 5, 6, 21, 22 &amp; 27 May 16, 17, 18, 19, 20, 23, 25, 26, 27 June 1, 6 &amp; 15 July 3, 22 &amp; 27 August 24, 25, 26, 28, 29 &amp; September 5, 12, 13 &amp; 14

Total No. of visits 36

Dates of Examination of principal parts — Cylinders

Slides

Covers

Pistons

Piston Rods

Connecting rods

Crank shaft

Thrust shaft

27 - 5 - 44

Intermediate shafts

27 - 5 - 44

Tube shaft

Screw shaft

22 - 4 - 44

Propeller

22 - 4 - 44

Stern tube

Engine and boiler seatings

16 - 5 - 44

Engines holding down bolts

15 - 6 - 44

Completion of fitting sea connections

16 - 5 - 44

Completion of pumping arrangements

28 - 8 - 44

Boilers fixed

25 - 5 - 44

Engines tried under steam

29 - 8 - 44

Main boiler safety valves adjusted

29 - 8 - 44

Thickness of adjusting washers

Look mts fitted

Crank shaft material O.H. Steel

Identification Mark H.P. 6-4-44

Thrust shaft material O.H. Steel

Identification Mark 4-4-44

Intermediate shafts, material O.H. Steel

Lloyd's No. 4053 W.S. 10-4-43

Lloyd's No. 4055 W.S. 10-4-43

Lloyd's No. 4054 W.S. 10-4-43

Screw shaft, material D.H. Steel

Identification Mark Lloyd's No. 4056 W.S. 10-4-43

Lloyd's No. 4052 W.S. 10-4-43

Lloyd's No. 4051 W.S. 10-4-43

Steam Pipes, material S.D. Steel

Test pressure 750 lbs.

Date of Test 1 - 6 - 44

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

No

If so, have the requirements of the Rules been complied with

No

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" (Vanc. Report No. 5942.)

General Remarks (State quality of workmanship, opinions as to class, &amp;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 installation on behalf of wartime Shipbuilding, 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. 9,44 Screw Shaft C.L. 2 - W.T. Blrs. 250 lb. (Spt. 230 lb.) F.D. fitted for oil fuel 9,44. Flash point above 150°F., subject to the mast head and sidelight wiring and all other P.V.C. cables fitted on deck, being examined within two years before the end of 9,46.

Montreal fees charged in Montreal Report No. 6141.

The amount of Entry Fee ... \$	:	:	When applied for,
Special Ver. ... 133.00	:	:	14th Sept 1944
Donkey Boiler Fee ... \$	:	:	When received,
Travelling Expenses (if any) \$ 20.00	:	:	19

Engine Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 8 DEC 1944

Assigned

+LMC 9,44 subject  
FD CL 2 WTB 2006  
(Spt 230 lb)



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