

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

7 APR 1944

Received at London Office.

Date of original Report **22nd Feb. 1944** When handed in at Local Office **22nd Feb. 1944** Port of **Vancouver, B.C.**
 No. in Survey held at **Vancouver, B.C.** Date, First Survey **25th Nov. 1943** Last Survey **19th Feb. 1944**
 Reg. Book (Number of Visits) **27**

on the **Steel Single Screw Steamer "FORT WALLACE"** Tons { Gross **7160.62**
 Net **4244.65**
 Built at **North Vancouver, B.C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **200** When built **1944**
 Engines made at **Lachine, Que.** By whom made **Canadian Allis Chalmers Ltd.** Engine No. **259** When made **1944**
 Boilers made at **Vancouver, B.C.** By whom made **Vancouver Iron Works** Boiler No. **618 - 620** When made **1944**
 Registered Horse Power **229** Owners **Minister of Munitions & Supply of Canada** Port belonging to **---**
 Nom. Horse Power as per Rule **628** 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 **24½" x 37" x 70"** Length of Stroke **48"** No. of Cylinders **3** No. of Cranks **3**
 Crank shaft, dia. of journals as per Rule **14.21** Crank pin dia. **14½"** Crank webs Mid. length breadth **---** Thickness parallel to axis **9" & 9½" L.P.**
 as fitted **14½"** Mid. length thickness **---** Thickness around eye-hole **7½" Pin**
 Intermediate Shafts, diameter as per Rule **13.53** Thrust shaft, diameter at collars as per Rule **14.21**
 as fitted **13.5** as fitted **14.25**
 Tube Shafts, diameter as per Rule **---** Screw Shaft, diameter as per Rule **15.07"** Is the shaft fitted with a continuous liner { **---**
 as fitted **---** as fitted **15.25"** as fitted **---** Yes
 Bronze Liners, thickness in way of bushes as per Rule **.75"** Thickness between bushes as per Rule **.565"** Is the after end of the liner made watertight in the
 as fitted **.78125** as fitted **.68"**
 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 **---** Is an approved Oil Gland or other appliance fitted at the after end of the tube
 shaft **No** If so, state type **---** Length of Bearing in Stern Bush next to and supporting propeller **61"**
 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 **---** Stroke **---** Can one be overhauled while the other is at work **---**
 Bilge Pumps worked from the Main Engines, No. **Two** Diameter **4½"** 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 4½" Rams**
 How driven **Steam Worthington Simplex** How driven **Duplex - Steam** M.E.
 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 **---** 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 2½" tunnel well, one 3" P&S for'd**
 In Pump Room **One 2½" 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 **Yes**
 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 **---**
 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.)**
 A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**
 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 17-7-43** 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.
 Are the spare gear required by the Rules been supplied **Yes**
 Are 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

Charles ...
President

Manufacturer.



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Lloyd's Register
Foundation

Dates of Survey while building

During progress of work in shops - See Montreal Report No. 6081

During erection on board vessel - 1943 Nov. 25, 26, 27, 30, Dec. 3, 16, 23, 24, 1944 Jan. 19, 20, 21, 24, 25, 26, 1944 Jan. 27, 29, Feb. 3, 4, 7, 8, 9, 11, 14, 16, 17, 18, 19

Total No. of visits 27

Dates of Examination of principal parts - Cylinders Slides Covers

Pistons See Montreal Report No. 6081 Piston Rods Connecting rods

Crank shaft Thrust shaft 20th Jan. 1944 Intermediate shafts 20th Jan. 1944

Tube shaft Screw shaft 30th Nov. 1943 Propeller 30th Nov. 1943

Stern tube 27th Nov. 1943 Engine and boiler seatings 27th Nov. 1943 Engines holding down bolts 20th Jan. 1944

Completion of fitting sea connections 27th Nov. 1943

Completion of pumping arrangements 4th Feb. 1944 Boilers fixed 23rd Dec. 1943 Engines tried under steam 8th Feb. 1944

Main boiler safety valves adjusted 8th Feb. 1944 Thickness of adjusting washers Lock nuts fitted.

Crank shaft material O.H. Steel Lloyd's 1331 Identification Mark 3-12-43 B.H. Thrust shaft material O.H. Steel Lloyd's 8674 Identification Mark 2-12-43 B.H.

Intermediate shafts, material O.H. Steel Lloyd's 8460 Identification Mark 29-6-43 Lloyd's 8468-9 J.H.N. Identification Mark 29-6-43 Lloyd's 8470-1 J.H.N. Identification Mark 29-6-43

Screw shaft, material O.H. Steel Lloyd's 8476 J.H.N. Identification Mark 29-6-43 Steam Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 25th Jan. 1944

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" (Vanc. Report 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 the approved plans, New Letters and otherwise in conformity with the Society's Rules. The materials and workmanship are 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 up and examined and found satisfactory. The machinery has also been surveyed during construction and 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 with Notation of *L.M.C. 2-44 Screw Shaft C.L. 2 - W.T. Blrs. 250 lb. (Spt. 230 lb.) Fitted for oil fuel 2-44. Flash point above 150° F.

Montreal fees charged in Montreal Report No. 6081

The amount of Entry Fee ... \$: When applied for, 21st Feb. 44

Special Ver. ... \$ 133.00

Donkey Boiler Fee ... \$: When received, 19

Travelling Expenses (if any) \$ 20.00

W.C. Baillie
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute THURS 27 APR 1944

Assigned + Lmc 2.44
FD CL



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