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24 AUG 1944

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

23 AUG 1944

Date of writing Report 29th May, 1944 When handed in at Local Office 29th May, 1944 Port of Vancouver, B. C.  
 No. in Survey held at Vancouver, B. C. Date, First Survey 21st Feb., 1944 Last Survey 27th May, 1944  
 Reg. Book -- on the Steel Single Screw Steamer "FORT KILMAR" (Number of Visits 46) Tons 7199.71 Gross 4003.23 Net  
 Built at Vancouver, B. C. By whom built Burrard Dry Dock Co. Ltd. Yard No. 208 When built 1944  
 Engines made at Montreal, P.Q. By whom made Dominion Engineering, Ltd. Engine No. 155 When made 1944  
 Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works, Ltd. Boiler Nos. 663 & 668 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 Refrigerated Victualling Ship

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" 13.53 for 230/16 Mid. length thickness -- sbrunk Thickness around eye-hole 7½" Pin  
 Intermediate Shafts, diameter as per Rule 13.5 Thrust shaft, diameter at collars as fitted 14.25" 7½" Journal  
as fitted -- as per Rule 15.07" Is the shaft fitted with a continuous liner Yes  
 Tube Shafts, diameter as fitted -- Screw Shaft, diameter as fitted 15.25" as per Rule .565" Is the after end of the liner made watertight in  
as per Rule .75" Thickness between bushes 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 No. and size Two 12" x 8" x 24" Pumps connected to the No. and size Four (Two) 10" x 11" x 12" Two 4½" Rams.  
 Pumps How driven Steam Worthington Simplex Main Bilge Line 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.  
Cofferdam. 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 As approved.  
 Are all Sea Connections fitted direct on the skin of the ship No: To cast steel 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.)  
 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 in U.K. Approved Plans 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 YesState 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

Shipbuilder.

President



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Lloyd's Register  
Foundation

014815-014826-0282



Dates of Survey while building  
During progress of work in shops - See Montreal Report No. 6114.  
During erection on board vessel - 1944.  
Feb. 21, 23, 25, 26. Mar. 3, 7, 8, 10, 13, 14, 21, 22, 27, 28, 29. Apr. 1, 5, 10, 11, 12, 13, 15, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 29. May 1, 3, 4, 8, 10, 11, 12, 15, 19, 23, 25, 26, 27.  
Total No. of visits 46

Dates of Examination of principal parts - Cylinders Slides Covers  
Pistons Piston Pins Connecting rods  
Crank shaft See Montreal Report No. 6114 Thrust shaft 1-4-44 Intermediate shafts 1-4-44  
Tube shaft Screw shaft 8-3-44 Propeller 8-3-44  
Stern tube 7-3-44 Engine and boiler seatings 8-3-44 Engines holding down bolts 15-4-44  
Completion of fitting sea connections 8-3-44  
Completion of pumping arrangements 20-4-44 Boilers fixed 21-3-44 Engines tried under steam 21-4-44  
Main boiler safety valves adjusted 21-4-44 Thickness of adjusting washers Lock nuts fitted  
Crank shaft material O.H. Steel Identification Mark Lloyd's No. 418 9-2-44 M.D. Thrust shaft material O.H. Steel Identification Mark Lloyd's No. 8803  
Intermediate shafts, material O.H. Steel Identification Marks Lloyd's No. 7330 A.S. 20-8-43 7307 A.S. 18-8-43 7306 A.S. 18-8-43  
Screw shaft, material O.H. Steel Identification Mark Lloyd's No. 7687 7333 A.S. 20-8-43 7293 A.S. 18-8-43 7313 A.S. 19-8-43  
Steam Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 11-4-44  
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 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 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 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. 5,44, Screw Shaft C.L. 2 - W.T. Blrs. 250 lb. (Spt. 230 lb.) F.D. Fitted for oil fuel 5,44. Flash point above 150°F.

Montreal fees charged in Montreal Report No. 6114.

The amount of Entry Fee ... \$ :  
Special (Vcr.) ... \$ 133.00 :  
Donkey Boiler Fee ... \$ :  
Travelling Expenses (if any) \$ 20.00 :  
When applied for, 29th May, 44  
When received, 19

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

Committee's Minute

WED. 6 SEP 1944

Assigned

+LMC 6,44 subject  
20. Cl. 2 with 250lb (Spt 230lb)