

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

16 NOV 1943

Date of writing Report **21st Sept. 1943** When handed in at Local Office **21st Sept. 1943** Port of **VANCOUVER, B.C.**

No. in Survey held at **North Vancouver, B.C.** Date, First Survey **9th June, 1943** Last Survey **8th Sept. 1943**

Reg. Book. **---** (Number of Visits **29**)

on the **Steel Single Screw Steamer, "STRATHCONA PARK"** Tons {Gross **7156.70**  
Net **4244.14**

Built at **North Vancouver, B.C.** By whom built **BURHARD DRY DOCK COMPANY LIMITED (North** Yard No. **184** When built **1943**

Engines made at **Toronto, Ontario** By whom made **John Inglis Co.** Engine No. **274** When made **1943**

Boilers made at **Vancouver, B.C.** By whom made **Vancouver Iron Works, Ltd.** Boiler No. **496 & 497** When made **1943**

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

Nom. Horse Power as per Rule **636** 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 **13.99** as per Rule **14.2** as fitted **14-1/4"** Crank pin dia. **14-1/4"** Crank webs **---** Mid. length breadth **---** Thickness parallel to axis **9" & 9 1/8" L.P.**

Intermediate Shafts, diameter **13.33** as per Rule **13.53** as fitted **13.5** Thrust shaft, diameter at collars **13.99** as per Rule **14.25** as fitted **14.25** Thickness around eye-hole **7 3/8" Journal**

Tube Shafts, diameter **---** as fitted **---** Screw Shaft, diameter **14.87** as per Rule **15.07** as fitted **15.25** Is the **---** shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes **.75"** as per Rule **.78125** as fitted **.78125** Thickness between bushes **.565"** as per Rule **.68"** 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 **---** Length of Bearing in Stern Bush next to and supporting propeller **61"**

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 {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**

In **Engine Room** **Forward and Aft Cofferdams** In Holds, &c. **One 3" P&S Nos. 1, 2, 3, 4 & 5 holds; one 4" P&S No. 1 and No. 2 Deep Tanks; one 6" 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 **Yes, Main Injection fitted to steel tube through D.B.A.** 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 **Yes**

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

What pipes pass through the deep tanks **Bilge, 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 square feet**

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.** (See 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) **6.7.43** Oil fuel Burning Piping Arrangements **9.7.43**

Superheaters **17.7.43** General Pumping Arrangements **6.7.43**

## SPARE GEAR.

Is 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.



March 29th, 1943 and subsequently per British Corporation's Report dated

Dates of Survey while building  
During progress of work in shops - - - June-9-12-17-18-21-30; July-14-17-21-28; Aug.-4,10-16-18-19-20-23-24-26-27-  
During erection on board vessel - - - Aug.-29-30-31; Sept.-1-2-3-4-7 & 8.  
Total No. of visits 29

Dates of Examination of principal parts - Cylinders Slides Covers  
Pistons Piston Rods Connecting rods  
Crank shaft Thrust shaft 21st July, 1943 Intermediate shafts 21st July, 1943  
Tube shaft Screw shaft 18th June, 1943 Propeller 18th June, 1943  
Stern tube 17th June, 1943 Engine and boiler seatings 17th June, 1943 Engines holding down bolts 21st July, 1943.  
Completion of fitting sea connections 30th June, 1943  
Completion of pumping arrangements 31st August 1943 Boilers fixed 21st July, 1943 Engines tried under steam 1st Sept. 1943  
Main boiler safety valves adjusted 31st August, 1943 Thickness of adjusting washers P.Blr. (F) 1-3/16" (A) 1 1/2" - 1-1/32"  
Crank shaft material O.H.Steel Identification Mark Lloyd's 3705 EER 24-3-43; 3707 EER 24-3-43; 3663 EER 19-3-43  
Intermediate shafts, material O.H.Steel Identification Mark Lloyd's 3671 EER 20-3-43; 3714 EER 26-3-43; 3714 EER 25-3-43  
Screw shaft, material O.H.Steel Identification Mark Lloyd's 3715 EER 25-3-43 Steam Pipes, material S.D.Steel Test pressure 750 lbs. Date of Test 27th Aug. 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" VCR.RPT. 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 British Corporation Toronto Surveyors and installed on board under this Society's Special Survey. 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 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. 9-43, Screw Shaft C.L. 2 - W.T. Blrs. (Spt) 250 lbs. per square inch F.D. Fitted for oil fuel 9-43 Flash point above 150°F.

The amount of Entry Fee ... \$ 30.00  
Special (Brit. Corp) \$267.00  
Donkey Boiler Fee ... \$133.00  
Travelling Expenses (Ver) \$ 20.00  
" (Brit. Corp) \$ 20.00

When applied for,  
13th Sept 43  
When received,  
19

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

Committee's Minute

Assigned

TUES. 21 DEC 1943

See p. machy rpt.



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Lloyd's Register  
Foundation