

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report **8th Dec. 19 43** When handed in at Local Office **8th Dec. 19 43** Port of **Vancouver, B.C.**

No. in Survey held at **North Vancouver, B.C.** Date, First Survey **2nd Sept 1943** Last Survey **29th Nov. 19 43**  
 Reg. Book. (Number of Visits **33**)

on the **Steel Single Screw Steamer "BEATON PARK"** Tons {Gross **7163.90**  
 Net **4250.28**

Built at **North Vancouver, B.C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **192** When built **1943**

Engines made at **Toronto, Ont.** By whom made **John Inglis Co. Ltd.** Engine No. **279** When made **1943**

Boilers made at **Vancouver, B.C.** By whom made **Vancouver Iron Works** Boiler No. **558,559** When made **18-8-43**

Registered Horse Power **229** Owners **Park Steamship Co. Ltd.** 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** Crank pin dia. **14 1/2"** Mid. length breadth **- -** Thickness parallel to axis **9 1/8" L.P.**  
 as fitted **14 1/2"** Crank webs **- -** shrunk Thickness around eye-hole **7 1/8" Pin**

Intermediate Shafts, diameter as per Rule **13.33** Thrust shaft, diameter at collars as per Rule **13.99**  
 as fitted **13.5** as fitted **14.25"**

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

Bronze Liners, thickness in way of bushes as per Rule **.75"** Thickness between bushes as per Rule **.565"**  
 as fitted **.78125** 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"** 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" x 8" x 24"** Pumps connected to the Main Bilge Line { No. and size **Four (Two) 10" x 11" x 12"** **Two Rams**  
 How driven **Steam Worthington Simplex (Duplex)** How driven **Duplex - Steam** **H.E.**

Ballast Pumps, No. and size **(One) 10" x 11" x 12"** Depressing 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**  
 for'd. & aft Cofferdams. 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 **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 **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 lbs. per sq. inch** (G.P. 130 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 **- -** Approved Plans **- -**

**PLANS.** Are approved plans forwarded herewith for Shafting **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**

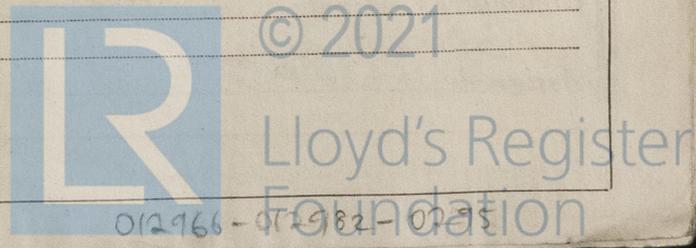
State the principal additional spare gear supplied

**As per List forwarded with Vancouver Report No. 5942 - S.S. "FORT COLUMBIA"**

The foregoing is a correct description  
 Burrard Dry Dock Company, Limited

*[Signature]*  
 President

Manufacturer.



March 29th, 1943 and subsequently per British Corporation Report dated  
 During progress of work in shops - - 20/9/43  
 Dates of Survey while building  
 During erection on board vessel - - - 1943. Sept. 2, 4, 17, 20, 22, 23, 27, 30 Oct. 1, 6, 20, 25, 27, 28 Nov. 1, 3, 4, 5, 6, 10, 12, 13  
 15, 16, 17, 18, 20, 22, 23, 24, 25, 27, 29.  
 Total No. of visits 33

Examined by British Corporation Surveyors  
 Dates of Examination of principal parts - Cylinders Slides Covers  
 Pistons Piston Rods Connecting rods  
 Crank shaft Thrust shaft Oct. 6th 1943 Intermediate shafts Oct. 6th 1943  
 Tube shaft Screw shaft Sept. 4th 1943 Propeller Sept. 4th 1943  
 Stern tube Sept. 2nd 1943 Engine and boiler seatings Sept. 2nd 1943 Engines holding down bolts Nov. 13th 1943  
 Completion of fitting sea connections Sept. 4th 1943  
 Completion of pumping arrangements November 15th 1943 Boilers fixed Sept. 17th/43 Engines tried under steam Nov. 17th/1943

Main boiler safety valves adjusted Nov. 17th 1943 Thickness of <sup>7</sup> "Compression" Port Blr. A. 1-7/32" - 1-1/32" S. Blr. 1-3/16" FI-1"  
 Crank shaft material O.H. Steel Identification Mark Lloyd's No. 5322C IJT29-12-42 HWM 6-8-43 rust shaft material O.H. Steel Identification Mark Lloyd's No 5485 EER 7-7 ASH18-8  
 Intermediate shafts, material O.H. Steel Identification Mark Lloyd's No. 5295 EER 20-5-43 3735 EER 26-3-43  
 Screw shaft, material O.H. Steel Identification Mark Lloyd's No 5091 EER 29-4-43 shaft, material 406 EER 19-4-43 Identification Mark 406 EER 19-4-43  
 Pipes, material S.D. Steel Test pressure 750 Lbs. Date of Test Nov. 10, 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" (Vancouver Report No. 59)  
 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 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 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. inch F.D. Fitted for oil fuel 10,43. Flash point above 150° F.

British Corporation Certificate dated 20th September 1943 attached.

The amount of Entry Fee \$ 30.00  
 Special Brit. Corp. \$ 267.00  
 " L.R. (Ver) \$ 133.00  
 Donkey Boiler Fee \$  
 Travelling Expenses (if any) L.R. (Ver) \$ 20.00  
 (B.C.) \$ 20.00

When applied for, 30th Nov. 1943  
 When received, 19  
 W.E. Baillie  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 22 FEB 1944  
 Assigned LMC 11.43



Date of writing Re  
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 of the  
 Shipbuilders...  
 Enginebuilders...  
 Boilermakers  
 Description of  
 Propelling Ma  
 Boilers: M  
 Int. diameter.  
 Fuel : Coal, C  
 Safety valves  
 Boilers: A  
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 Steam En  
 IHP each, 25  
 Turbines:  
 SHP each  
 Gearing:  
 Oil Engin  
 Cyl. diars.  
 BHP each  
 Flywheel : V  
 Starting air  
 Electric P  
 Shafting:  
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Certificate to be sent to

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