

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report **10th April, 1945** When handed in at Local Office **10th April, 1945** Port of **Vancouver, B. C.**  
 No. in Survey held at **North Vancouver, B.C.** Date, First Survey **8th Dec., 1944** Last Survey **28th March, 1945**  
 Reg. Book on the **Steel Single Screw Steamer "GARDEN PARK"** (Number of Visits **32**)  
 Built at **North Vancouver, B.C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **230** When built **1945**  
 Engines made at **Lachine, P. Q.** By whom made **Canadian Allis-Chalmers Ltd.** Engine No. **392** When made **1945**  
 Boilers made at **Vancouver, B. C.** By whom made **Dominion Bridge Co.** Boiler No. **813** When made **1945**  
 Registered Horse Power **229** Owners **Minister of Munitions & Supply of Canada (Mgrs. Park Steamship Co. Ltd.)** Port belonging to **Montreal, P. Q.**  
 Nom. Horse Power as per Rule **505** 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 575°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 **13.99"** Crank pin dia. **14.25"** Crank webs Mid. length breadth **- -** Thickness parallel to axis **9" & 9½" L.P.**  
 as fitted **14.25"** Mid. length thickness **- -** sbrunk Thickness around eye-hole **7½" Pin**  
 Intermediate Shafts, diameter as per Rule **13.33"** Thrust shaft, diameter at collars as per Rule **13.99"** **7½" Journal**  
 as fitted **13.5"** as fitted **14.25"**  
 Tube Shafts, diameter as per Rule **- -** Screw Shaft, diameter as per Rule **14.87"** Is the **scru** 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 propeller boss **Yes** as fitted **.78125"** as fitted **.68"** 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 - 8" x 10½" x 22"** Pumps connected to the { No. and size **One 10" x 12" x 10"** Two **4½"** Dia. Rams  
 { How driven **Steam Weir Simplex** Main Bilge Line { How driven **Duplex Steam** **M.E.**  
 Ballast Pumps, No. and size **One 10" x 12" x 10"** 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 in Eng. Rm., One 3"P&S in Blr. Rm., One 2" dia. Thrust Recess, One 2½"**  
**In Pump Room—Tunnel Well** In Holds, &c. **One each P. & S. 3" dia. Nos. 1, 2, 3, 4, 5 Holds**  
**One 3"P&S No. 4 Dry Tank, One 3"P&S After Cofferdam, One 5" P&S Deep Tank**  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size **One 9" Dia.** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One 5" Dia. Starb.** 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 some to C.S. 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 **Yes**  
 What Pipes pass through the bunkers **D.B. Tank Air and Sounding Pipes** How are they protected **Steel casings**  
 What pipes pass through the deep tanks **D.B. Tank Air Pipes only** 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 **s**) Total Heating Surface of Boilers **7140** sq. ft.  
 Which Boilers are fitted with Forced Draft **All** Which Boilers are fitted with Superheaters **All**  
 No. and Description of Boilers **3 Single Ended Multitubular** Working Pressure **220** lbs. per sq. inch.  
 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. Are approved plans forwarded herewith for Shafting in U.K. Main Boilers **25-8-43** Auxiliary Boilers **- -** Donkey Boilers **- -**  
 Superheaters **6-11-41** General Pumping Arrangements **15-9-43** Oil fuel Burning Piping Arrangements **15-9-43**

**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. 6426 - S.S. "WINONA PARK"**

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

Shipbuilders  
 Manufacturers



See Montreal Report No. 6459 attached herewith.

Dates of Survey while building

During progress of work in shops --	1944 Dec. 8, 14, 28			1945 Jan. 5, 8, 11, 12	Feb. 12, 16, 19, 20, 22, 23, 26, 27
	During erection on board vessel --		Mar. 1, 2, 3, 5, 7, 9, 14, 15, 16, 19, 21, 22, 23, 24, 26, 27, 28		
Total No. of visits		32			

Dates of Examination of principal parts — Cylinders Slides Covers

Pistons

Crank shaft Thrust shaft 19 - 2 - 45 Intermediate shafts 19 - 2 - 45

Tube shaft Screw shaft 12 - 1 - 45 Propeller 12 - 1 - 45

Stern tube 11 - 1 - 45 Engine and boiler seatings 12 - 1 - 45 Engines holding down bolts 1 - 3 - 45

Completion of fitting sea connections 11 - 1 - 45

Completion of pumping arrangements 22 - 3 - 45 Boilers fixed 12 - 2 - 45 Engines tried under steam 21 - 3 - 45

Main boiler safety valves adjusted 21 - 3 - 45

Port P. 27/64" S. 1/2", Centre P. 35/64" S. 5/8", Stbd. P. 7/16" S. 37/64"

Thickenss of adjusting washers

Crank shaft material O.H. Steel Identification Mark Lloyd's No. 6936 H.G.L.P. Lloyd's No. 9322 HGL

Intermediate shafts, material O.H. Steel Identification Mark Lloyd's 9312 TM 14-9-44 Thrust shaft material O.H. Steel Identification Mark Lloyd's 9331 TM 14-9-44

Screw shaft, material O.H. Steel Identification Mark Lloyd's 9201 TM Tube shaft material Lloyd's 9318 TM 14-9-44

Steam Pipes, material S.D. Steel Test pressure 660 lbs. Date of Test 1-3-45

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 --

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. "WINONA PARK" (Vcr. Report No. 6426)

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 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 \*LMC 3,45 Screw Shaft C.L. 3 S.E. Blrs. 220 lbs. (Spt.) F.D.

Fitted for Oil Fuel 3,45 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 3,47.

Committee's Minute

Assigned

Montreal Fees charged in Montreal Report No. 6459

The amount of Entry Fee ... \$	:	:	When applied for,
Special Vcr. \$133.00	:	:	29 Mar. 1945
Donkey Boiler Fee ... \$	:	:	When received,
Travelling Expenses (if any) \$ 20.00	:	:	19

A.M. Ross + Q.B.M. Coleman  
 (acting) Engineer Surveyor to Lloyd's Register of Shipping.

FRI 15 JUN 1945

+ LMC 3,45 subject  
 F.D. Cl.



Certificate to be sent to

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