

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **2 AUG 1945**

Date of writing Report **14th June 1945** When handed in at Local Office **14th June 1945** Port of **Vancouver, B. C.**
 No. in Survey held at **North Vancouver, B.C.** Date, First Survey **23rd Jan., 1945** Last Survey **8th June 1945**
 Reg. Book **---** (Number of Visits **38**)
 on the **Steel Single Screw Steamer "HIGHLAND PARK"** Tons { Gross **7149.58** Net **4214.21**
 Built at **North Vancouver, B. C.** By whom built **North Van Ship Repairs Ltd.** Yard No. **152** When built **1945**
 Engines made at **Lachine, P. Q.** By whom made **Canadian Allis-Chalmers Ltd.** Engine No. **393** When made **1945**
 Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works Ltd.** Boiler No. **822** 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 **---** 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 **---** 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 - 8" x 10½" x 22"** Pumps connected to the Main Bilge Line (No. and size **One 10" x 12" x 10" Two 4½" Dia. Rams**
 How driven **Steam Weir Simplex** 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"**
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 **---**
 PLANS. Are approved plans forwarded herewith for Shafting **Approved 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.

Is the spare gear required by the Rules been supplied **Yes**
 What is 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

Shipbuilders
Manufacturers

W. L. Jordan's Registered
Foundation

003513-003524-0267

Dates of Survey while building:

- During progress of work in shops - See Montreal Report No. 6463 attached herewith.
- During erection on board vessel - 1945 Jan. 23, 27, 31 Feb. 1, 14, 20, 21, 22 March 1, 15
Apr. 2, 10, 25, 30 May 1, 2, 3, 4, 5, 9, 11, 14, 15, 16, 17, 18, 19, 22, 24, 25, 28, 30, 31 June 2, 6, 7, 8
- Total No. of visits 38

Dates of Examination of principal parts - Cylinders Slides Covers
 Pistons Piston Rods Connecting rods
 Crank shaft Thrust shaft 19 - 5 - 45 Intermediate shafts 19 - 5 - 45
 Tube shaft See Montreal Report No. 6463 Screw shaft 1 - 2 - 45 Propeller 22 - 2 - 45
 Stern tube 20 - 2 - 45 Engine and boiler seatings 1 - 3 - 45 Engines holding down bolts 25 - 4 - 45
 Completion of fitting sea connections 28 - 2 - 45
 Completion of pumping arrangements 6 - 6 - 45 Boilers fixed 3 - 3 - 45 Engines tried under steam 24 - 5 - 45
 Main boiler safety valves adjusted 23 - 5 - 45 Thickness of adjusting washers Port P. 7/16" S. 1/8" Cent. S. 11/16" Stbd. S. 11/16"
 Crank shaft material O.H. Steel Lloyd's No. 7036 18-1-45 HGLP Thrust shaft material O.H. Steel Lloyd's 9306 17-1-45
 Intermediate shafts, material O.H. Steel Lloyd's 5974 8-8-44 EER Lloyd's 2305 11-8-44 EER Lloyd's 5994 9-8-44 EER
 Screw shaft, material O.H. Steel Lloyd's 8000 3-8-44 EER Lloyd's 2302 9-8-44 EER Lloyd's 7999 3-8-44 EER
 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. "SELKIRK PARK" (Vcr. Report No. 6479)
 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 6,45 Screw Shaft C.L. 3 S.E. Blrs. 220 lbs. (Spt.) F.D. Fitted for Oil Fuel 6,45 Flash point above 150°F. subject to the mast head and sidelight wiring all other P.V.C. cables fitted on deck being examined within two years before the end of 6,47.

Montreal Fees charged in Montreal Report No. 6463

The amount of Entry Fee ... \$:) When applied for,
 Special Vcr. ... \$ 133.00 :) 12 June 1945
 Donkey Boiler Fee ... \$:) When received,
 Travelling Expenses (if any) \$ 20.00 :) 19

J. Caldwell
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 10 AUG 1945**

The Assigned **+ LMC 6,45 Subject**
 FITTED FOR OIL FUEL 6,45 FLASH POINT ABOVE 150°F. F.D. C.L. Sph.



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