

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

176170897 26 JUN 1944

Date of writing Report **31st May, 1944** When handed in at Local Office **31st May, 1944** Port of **Vancouver, B. C.**  
 No. in Survey held at **North Vancouver, B. C.** Date, First Survey **21st February, 1944** Last Survey **30th May, 1944**  
 Reg. Book **---** on the **Steel Single Screw Steamer "DORVAL PARK"** (Number of Visits **34**)  
 Tons { Gross **7162.70**  
 Net **---**  
 Built at **North Vancouver, B.C.** By whom built **North Van Ship Repairs Ltd.** Yard No. **141** When built **1944**  
 Engines made at **Toronto, Ontario** By whom made **John Inglis Co. Ltd.** Engine No. **291** When made **1944**  
 Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works Ltd.** Boiler No. **671-672** When made **1944**  
 Registered Horse Power **229** Owners **Minister of Munitions & Supply of Canada. (Mgrs. Park Steamship Co. Ltd., Montreal, P.Q.)** 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 **General Cargo**

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"** Mid. length thickness **---** Thickness around eye-hole **7½" Pin**  
 Intermediate Shafts, diameter as per Rule **13.53** Thrust shaft, diameter at collars as per Rule **14.21** **7½" Journal**  
 as fitted **13.5** as fitted **14.25**  
 Tube Shafts, diameter as per Rule **---** Screw Shaft, diameter as per Rule **15.07"** Is the **no** shaft fitted with a continuous liner { **---**  
 as fitted **---** as fitted **15.25"** Is the **screw** **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"** **Yes** If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **Continuous**  
 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**  
 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  
 aft **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.  
 Main 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** **ME**  
 Distast 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  
 Pumps;—In Engine and Boiler Room **One 3" P&S, one 3" thrust recess, one 2½" tunnel well, one 3" P&S for'd.**  
 Pump Room **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.**

Water Circulating Pump Direct Bilge Suctions, No. and size **(One) 10"** Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 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**  
 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**  
 Water Pipes pass through the bunkers **None** How are they protected **---**  
 Water pipes pass through the deep tanks **D.B. Air Pipes** Have they been tested as per Rule **Yes**  
 All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **Yes**  
 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**  
 and Description of Boilers **Two - Babcock & Wilcox W.T.** Working Pressure **250 lb. (Spt. 230 lb.)**

A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**  
 A DONKEY BOILER FITTED? **No** If so, is a report now forwarded? **---**  
 the donkey boiler be used for domestic purposes only **---**

ANS. Are approved plans forwarded herewith for Shafting **Approved Plans** Main Boilers **17-7-43** Auxiliary Boilers **---** Donkey Boilers **---**  
 (If not state date of approval) **17-7-43** General Pumping Arrangements **6-7-43** Oil fuel Burning Piping Arrangements **9-7-43**  
**As fitted plan attached.**  
**SPARE GEAR.**

the spare gear required by the Rules been supplied **Yes**  
 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  
 NORTH VAN SHIP REPAIRS LIMITED

President

Manufacturer.



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 Foundation



March 29th, 1943 and subsequently per British Corporation Report dated 13th March, 1944 attached herewith.

Dates of Survey while building

During progress of work in shops - 13th March, 1944 attached herewith.

During erection on board vessel - 1944 Feb. 21, 22, 23 & 28 March 14, 16, 20, 21 & 29 April 13, 20, 21, 24, 25 & 29 May 1, 3, 4, 5, 6, 8, 9, 10, 11, 15, 16, 17, 18, 20, 22, 23, 25, 27 & 29

Total No. of visits 34

Examined by British Corporation Surveyors

Dates of Examination of principal parts - Cylinders Slides Covers

Pistons Connecting rods

Crank shaft Thrust shaft 9 - 5 - 44 Intermediate shafts 9 - 5 - 44

Tube shaft Screw shaft 14 - 3 - 44 Propeller 20 - 3 - 44

Stern tube 16 - 3 - 44 Engine and boiler seatings 21 - 3 - 44 Engines holding down bolts 3 - 5 - 44

Completion of fitting sea connections 21 - 3 - 44

Completion of pumping arrangements 18 - 5 - 44 Boilers fixed 10 - 4 - 44 Engines tried under steam 19 - 5 - 44

Main boiler safety valves adjusted 18 - 5 - 44 Thickness of adjusting washers Lock nuts fitted Lloyd's No. 6360

Crank shaft material O.H. Steel Identification Mark 13-1-43 Thrust shaft material O.H. Steel Identification Mark 13-1-43

Intermediate shafts, material O.H. Steel Identification Mark 13-1-43

Screw shaft, material O.H. Steel Identification Mark 13-1-43

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 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 at 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 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.

British Corporation Certificate dated 13th March, 1944 attached.

The amount of Entry Fee ... \$ 30.00

Special (Brit. Corp.) \$ 267.00

" L.R. (Ver.) \$ 133.00

Donkey Boiler Fee ... \$

L.R. (Ver.) \$ 20.00

Travelling Expenses (if any) (Brit. Corp.) \$ 20.00

When applied for, 29th May 1944

When received, 19

J. Caldwell

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

LMC\* 5,44 subpat

2 NTS 250 lb (Spt 230 lb)

FD. - L



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