

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 23rd Feb., 44 When handed in at Local Office 23rd Feb., 44 Port of Vancouver, B. C.
 No. in Survey held at Vancouver, B. C. Date, First Survey 23rd Dec., 1943 Last Survey 21st February, 1944
 Reg. Book --- (Number of Visits 20)
--- on the Steel Single Screw Steam Tanker "ARLINGTON BEACH PARK" Tons {Gross 7241.52
 Net 4181.45
 Built at Vancouver, B.C. By whom built West Coast Shipbuilders, Ltd. Yard No. 135 When built 1944
 Engines made at Montreal By whom made Canadian Allis-Chalmers Engine No. 260 When made 1944
 Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works, Ltd. Boiler Nos 623 & 626. When made 1944
 Registered Horse Power 229 Owner Minister of Munitions & Supply of Canada belonging to Montreal
 (Mgrs. - Park Steamship Co. Ltd., Montreal, P.Q.)
 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 Carrying Homogeneous Cargo of Petroleum in Bulk.

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" for 23.0" 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 (7.125" & 7.625")
 Intermediate Shafts, diameter as per Rule 13.53" Thrust shaft, diameter at collars as per Rule 14.21"
 as fitted 13.5" as fitted 14.25"
 Tube Shafts, diameter as per Rule --- Screw Shaft, diameter as per Rule 15.07"
 as fitted --- as fitted 15.25" Is the {tube} shaft fitted with a continuous liner {---
{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"
 Propeller boss Yes-Rubber ring 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
 shaft No If so, state type --- Length of Bearing in Stern Bush next to and supporting propeller 61"
 Propeller, dia 18'-6" Pitch 16' 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 4½" Stroke 26" Can one be overhauled while the other is at work Yes
 Feed Pumps {No. and size Two - 12" x 8" x 24" Pumps connected to the {No. and size 1-10"x11"x12"-G.S. Duplex, 1-10"x11"x12"
 {How driven Steam-Worthington Simplex Main Bilge Line {How driven Steam 2-4½" Dia. M.E. Ram. Fire & Bilge Duplex.
 Ballast Pumps, No. and size 1-10"x11"x12" Steam 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 1-3" Dia. P. & S. Cofferdam-Ford. 1-3" Dia. P. & S. Aft, 1-2½" Dia. P. & S. in way of
 Pump Room 1-2½" Dia. P. & S. (Ford). 1-2½" Dia. P. & S. (aft) No. 4 D.B. tanks.

See General Remarks. (Auxiliary Bilge Pump only).
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One - 10" Dia. Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 2 - 5" Dia. (1 - P. & S.) Are all the Bilge Suction Pipes --- 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 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 & cargo tanks - Air & Sounding Have they been tested as per Rule Yes
Tanks to D.B.
 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
 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)
 Superheaters 17-7-43 General Pumping Arrangements 22-4-43 Oil fuel Burning Piping Arrangements 4-5-43
 (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
 WEST COAST SHIPBUILDERS LTD.
W. S. M. Lane
 General Manager

Manufacturer.



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Dates of Survey while building
 During progress of work in shops - See Montreal Report No. 6094
 During erection on board vessel - 1943. Dec. 23, 24. Jan., 1944 - 3, 6, 13, 15, 19, 21, 22, 27.
 Feb., 1944 - 5, 7, 8, 9, 10, 11, 14, 16, 19, 21.
 Total No. of visits 20

Dates of Examination of principal parts — Cylinders Slides Covers
 Pistons
 Crank shaft See Montreal Report No. 6094 Piston Rods Connecting rods
 Thrust shaft 8-2-44 Intermediate shafts 5-2-44
 Tube shaft Screw shaft 24-12-43 Propeller 24-12-43
 Stern tube 23-12-43 Engine and boiler seatings 8-2-44 Engines holding down bolts 8-2-44
 Completion of fitting sea connections 24-12-43
 Completion of pumping arrangements 14-2-44 Boilers fixed 5-2-44 Engines tried under steam 9-2-44
 Main boiler safety valves adjusted 9-2-44 Thickness of adjusting washers Lock nuts fitted.
 Crank shaft material O.H. Steel Lloyd's No. 1456 Identification Mark 14-12-43 B.H. Thrust shaft material O.H. Steel Lloyd's No. 8716 Identification Mark 10-12-43
 Intermediate shafts, material O.H. Steel Lloyd's 7500 7-9-43 EER 7525 10-9-43 EER 7513 9-9-43 EER
 Screw shaft, material O.H. Steel Lloyd's 7496 7-9-43 EER 7512 9-9-43 EER 7529 10-9-43 EER
 Steam Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 21-1-44
 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 Tanker 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 "MOUNT BRUCE PARK" (Ver. Report No. 6048)

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, P.Q. Surveyors and installed on board under Special Survey in accordance with the 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. Complete oil cargo pumping arrangements are fitted as per Wartime Shipbuilding, Ltd., Plan T.M.23, approved New York, April 13, 1943, with pump room forward and aft. A large duplex steam driven cargo oil pump is fitted in each pump room, also 1-9"x6"x10" duplex steam driven bilge pump in each pump room with suction to:- 1-3 1/2" dia. forepeak, 1-2" dia. ford. cofferdam, 1-2" dia. P. & S. each Nos. 1, 2, 3, 4 & 5 tween dks. way of cargo tanks, 1-2 1/2" dia. each, thrust recess bilge, tunnel well bilge, cofferdam above tunnel recess aft P. & S., and cofferdam abaft machinery space P.S., also ford. and after pump rooms. A complete carbon dioxide fire extinguishing system is fitted in the machinery and boiler spaces operated from the upper deck. The machinery has also been surveyed during construction and 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. 2,44. Screw Shaft C.L. 2 W.T. Boilers 250 lb. (Spt. 230 lb.) F.D. - Fitted for oil fuel 2,44, Flash point above 150 degrees Fah.

Mtl. fees charged in Montreal Report No. 6094
 The amount of Entry Fee ... \$: : When applied for,
 Special (Ver.) ... \$ \$133.00 : (23rd Feb 1944) RB
 Donkey Boiler Fee ... \$: : When received,
 Travelling Expenses (if any) \$ \$ 20.00 : ✓ 19

R. L. Knox
 Engineer Surveyor to Lloyd's Register of Shipping.

THURS 11 MAY 1944

Committee's Minute
 Assigned 4 LMC 2.44 subed.



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