

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

3 MAR 1944 28th. Dec. /43 29th. Dec. /43 Received at London Office 3 MAR 1944
 Date of writing Report 2nd. Nov. 1943 When handed in at Local Office 27th. Oct. 1943 Port of Montreal, P.Q. & Quebec P.Q. 43
 No. in Survey held at Montreal, P.Q. Date, First Survey 16th. Aug. Last Survey 18th Oct. 19 43
 Reg. Book

on the **Single Screw Steamer "FORT BRUNSWICK"** (Number of Visits... 31 & 18 Tons {Gross 7140.89 Net 4223.38

Built at **Lauzon, Levis, P.Q.** By whom built **Davie Shipbuilding & Repairing Company Limited** Yard No. **549** When built **1943**
 Engines made at **Lachine, P.Q.** By whom made **Dominion Engineering Works Limited** Engine No. **133** When made **1943**
 Boilers made at **Lachine P.Q.** By whom made **Dominion Bridge Co. Ltd.** Boiler No. **FB-1264-P2 CB-1264-C1 St. B. 1264-S2** When made **1943**
 Registered Horse Power **504** Owners **Park Steamship Co. Ltd.** Port belonging to **-**
 Nom. Horse Power as per Rule **504** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
 Trade for which Vessel is intended **--**

ENGINES, &c.—Description of Engines **Triple Expansion** 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"** 14.00" Crank pin dia. **14 1/2"** Crank webs Mid. length breadth **--** Thickness parallel to axis **9" & 9 1/2" L.P.**
 as fitted **14 1/2"** Mid. length thickness **--** Thickness around eye-hole **7.125**
 Intermediate Shafts, diameter as per Rule **13.33"** 13.32" Thrust shaft, diameter at collars as per Rule **13.99"** 14.00"
 as fitted **13.5"** as fitted **14.25"**
 Tube Shafts, diameter as per Rule **--** Screw Shaft, diameter as per Rule **14.87"** Is the ~~screw~~ shaft fitted with a continuous liner **Yes**
 as fitted **--** as fitted **15.25"**
 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"**
 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 10"x7"x24"** Pumps connected to the {No. and size **Three-Two 4 1/2" Rams, one 10"x12"x10"**
 Pumps {How driven **Weirs, Steam driven** Main Bilge Line {How driven **Two Main Engine, one duplex steam**
 Ballast Pumps, No. and size **One 10"x12"x10"** Lubricating Oil Pumps, including Spare Pump, No. and size **--**
 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 **E.R. three x3", one x5", one x9" B.R. two x3"**
 In Pump Room **--** In Holds, &c. **No. 1, 2, 3, 4 & 5 each one x3" P&S; Deep Tanks P&St. one each 6", After tunnel well one 2 1/2", F.P. & A.P. on Ballast Range one each 4"**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One x9"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **St. one x5"** 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 **Yes, except Main Injection** Are they fitted with Valves or Cocks **7 Valves, 2 Cocks.**
 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 **P&St. Steel bilge lines to No. 1 & 3 Holds** How are they protected **by Bilge covering boards.**
 What pipes pass through the deep tanks **None** Have they been tested as per Rule **--**
 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 **Variable**) Total Heating Surface of Boilers **7140 square feet**
 Which Boilers are fitted with Forced Draft **Yes** Which Boilers are fitted with Superheaters **All Three**
 No. and Description of Boilers **3 single ended Multitubular** Working Pressure **.220 lbs. per square 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 **--** Main Boilers **--** Auxiliary Boilers **--** Donkey Boilers **--**
 (If not state date of approval)
 Superheaters **--** General Pumping Arrangements **--** Oil fuel Burning Piping Arrangements **--**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes**
 State the principal additional spare gear supplied **--**

The foregoing is a correct description
 DOMINION ENGINEERING WORKS LIMITED
 PER: *D. S. Van Batten*

Manufacturer.



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Dates of Survey while building

During progress of work in shops - 16, 31 August. 2, 7, 9, 11, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 27, 28, 30 September. 1, 2, 4, 5, 6, 7, 8, 12, 13, 14, 16, 18 October. 1943.

During erection on board vessel - 1943- Aug:-30, Sept. 14, 16, 18, October 5, 13, 21, 30 November 3, 4, 9, 17, 29, December 4, 12, 15, 19, 22.

Total No. of visits 31 & 18 = 49

Dates of Examination of principal parts - Cylinders 23.7.43, 14.7.43 Slides 23.7.43, 14.7.43 Covers 23.7.43, 14.7.43
 Pistons 23.7.43, 14.7.43 Piston Rods 18.10.43 Connecting rods 18.10.43
 Crank shaft 18.10.43 Thrust shaft 7.10.43 Intermediate shafts 6 at 6.1.43 I.J.T.
 Tube shaft - Screw shaft 6.1.43 Propeller No. 164 5.3.43 W.F.M.
 Stern tube 22.11.43 Engine and boiler seatings 10.11.43 Engines holding down bolts 9.12.43
 Completion of fitting sea connections 3.12.43
 Completion of pumping arrangements 19.12.43 Boilers fixed 15.11.43 Engines tried under steam 20.12.43 See remarks
 Main boiler safety valves adjusted 17.12.43 Thickness of adjusting washers P. 527" & .527" C. -.473" & .396" St. -.689" & .655" 8537
 Crank shaft material O.H. Steel Identification Mark HS. 18.10.43 Thrust shaft material O.H. Steel Identification Mark HS. 7.10.43
 Intermediate shafts, material Identification Marks See below Tube shaft, material - Identification Mark
 Screw shaft, material Identification Mark I.J.T. 5779 Steam Pipes, material Steel Test pressure 660 Date of Test D.H. 25.11.43
 Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. --
 Have the requirements of the Rules for the use of oil as fuel been complied with --
 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 --
 Is this machinery duplicate of a previous case Yes If so, state name of vessel SS. "FORT TADOUSSAC" & "FORT CHAMBLY"

General Remarks (State quality of workmanship, opinions as to class, &c.)

This ENGINE has been constructed under Special Survey in accordance with the Rules and Approved Plans. The materials and workmanship are good. The cylinders were tested hydrostatically to 330, 110 and 30 lbs. pressure per square inch respectively, and found tight under those pressures.

This ENGINE has been fitted with Cast Steel CONNECTING RODS.

The ENGINE has now been shipped to DAVIE SHIPBUILDING & REPAIRING COMPANY LIMITED, LAUZON, LEVIS, P.Q., for installation and official trials. It is recommended for the favourable consideration of the Committee that the record of * L.M.C. (with date) be made in the Register Book in the case of this Vessel, subject to satisfactory installation and sea trials.

The MACHINERY of this vessel has now been properly fitted on board and on completion a dock trial of 14 hours duration was carried out and engine proved satisfactory. Ice conditions in the River St. Lawrence made it impossible to have a full power trial. The Safety Valves have been adjusted under steam and tested for accumulation. In my opinion, this vessel is eligible for record of * L.M.C. 12.43 and Notation T.S. (C.L.) subject to Machinery & Boilers being tried out under full working conditions between Quebec & Halifax N.S.

Intermediate Shafting Identifications Marks:-

5926, 5891, 5928, 5896, 5895, 5809, All 6.1.43 I.J.T.

The amount of Entry Fee ... \$ 30.00 : When applied for,
 Special ... \$ 400.00 : (Jan 28 1944)
 Donkey Boiler Fee ... \$: : When received,
 Travelling Expenses (if any) \$ Included 19. :
 in Hull Rpt.

H. J. Saunders & D. Salkett
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 16 MAY 1944

TUES. 19 SEP 1944

Assigned

No action

+ L.M.C. 1.44
 J.D.C.



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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.