

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **8 AUG 1946**

Date of writing Report **Feb. 22nd, 1946** When handed in at Local Office **Feb. 21st, 1946** Port of **Montreal, Que.**
 No. in Survey held at **Montreal, Que.** Date, First Survey **Aug. 20th, 1945** Last Survey **Feb. 20th, 1946**
 Reg. Book on the **Steel Single Screw Steamer "OTTAWA PANDORA"** Daily attendance (Number of Visits) **909.21** Gross Tons **424.13** Net Tons
 Built at **Victoria, B.C.** By whom built **Victoria Machinery Depot Co. Ltd.** Yard No. **42** When built **1946**
 Engines made at **LACHINE, Que.** By whom made **CANADIAN ALLIS-CHALMERS ENGINE CO. LIMITED** Engine No. **585** When made **1945-46**
 Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Rule _____ Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____
 Trade for which Vessel is intended _____

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute **-**
 Dia. of Cylinders **13 1/2" x 22 1/2" x 38"** Length of Stroke **27"** No. of Cylinders **3** No. of Cranks **3**
 Crank shaft, dia. of journals as per Rule **7.51"** as fitted **7.875"** Crank pin dia. **7.875"** Crank webs Mid. length breadth **13"** Thickness parallel to axis **4.8125"**
 Intermediate Shafts, diameter as per Rule _____ as fitted _____ Thrust shaft, diameter at collars as per Rule **7.51"** as fitted **7.875"** Thickness around eye-hole **3.9375"** **4.1875"**
 Tube Shafts, diameter as per Rule _____ as fitted _____ Screw Shaft, diameter as per Rule _____ as fitted _____ Is the **in** shaft fitted with a continuous liner **screw**
 Bronze Liners, thickness in way of bushes as per Rule _____ as fitted _____ Thickness between bushes as per Rule _____ as fitted _____ Is the after end of the liner made watertight in the propeller boss _____
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner _____
 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 _____
 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 _____ If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller _____
 Propeller, dia _____ Pitch _____ No. of Blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ 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. **None** Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 Feed Pumps { No. and size _____ How driven _____ Pumps connected to the { No. and size _____ How driven _____ Main Bilge Line
 Ballast Pumps, No. and size _____ 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 _____ In Pump Room _____ In Holds, &c. _____

Main Water Circulating Pump Direct Bilge Suctions, No. and size _____ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size _____ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes _____
 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 _____
 Are all Sea Connections fitted direct on the skin of the ship _____ Are they fitted with Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the Overboard Discharges above or below the deep water line _____
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel _____ Are the Blow Off Cocks fitted with a spigot and brass covering plate _____
 What Pipes pass through the bunkers _____ How are they protected _____
 What pipes pass through the deep tanks _____ 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 _____
 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 _____ Is the Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

MAIN BOILERS, &c.— (Letter for record _____) Total Heating Surface of Boilers _____
 Which Boilers are fitted with Forced Draft _____ Which Boilers are fitted with Superheaters _____
 No. and Description of Boilers _____ Working Pressure _____
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? _____
 IS A DONKEY BOILER FITTED? _____ 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 _____
 State the principal additional spare gear supplied _____

The foregoing is a correct description
 Canadian Allis-Chalmers Limited

Per: *L.P. Brady*

Manufacturer.



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Dates of Survey while building
 During progress of work in shops --- Continuous from August 20th, 1945 to February 20th, 1946.
 During erection on board vessel ---
 Total No. of visits Constant attendance

Dates of Examination of principal parts—Cylinders 22.1.46 Slides 4.12.45 Covers 4.12.45
 Pistons 14.12.45 Piston Rods 4.1.46 Connecting rods 7.1.46
 Crank shaft 25.1.46 Thrust shaft 13.2.46 Intermediate shafts
 Tube shaft Screw shaft Propeller
 Stern tube Engine and boiler seatings Engines holding down bolts
 Completion of fitting sea connections
 Completion of pumping arrangements Boilers fixed Engines tried under steam
 Main boiler safety valves adjusted Thickness of adjusting washers
 Crank shaft material O.H. Steel Identification Mark Lloyd's No. 2162
 M.D. 25.1.46 Thrust shaft material O.H. Steel Identification Mark Lloyd's No. 13.2
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark
 Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test
 Is an installation fitted for burning oil fuel 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 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)
 This ENGINE together with Thrust Shaft, Thrust Block and Condenser have been constructed under Special Survey in accordance with the Rules and Approved Plans, and the workmanship is, in my opinion, good
 The Forgings and Castings have been tested and finally examined by the undersigned and found satisfactory.
 This ENGINE has been shipped to VANCOUVER, B.C. for installation and official trials.
 It is recommended for the favourable consideration of the Committee that the record of LMC (with date) be made in the Register Book in the case of the Vessel, subject to satisfactory installation and sea trials.

The amount of Entry Fee ... \$ 15⁰⁰
 Special ... \$ 200⁰⁰
 Donkey Boiler Fee ... \$
 Travelling Expenses (if any) \$ 23⁰⁰
 When applied for, 1946
 When received, 1946

M Dickson
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 23 AUG 1946

Assigned for minute see T.E. Tech Rpt. Ver. 6998.

