

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 1 - JUN 1946

Date of writing Report 18th March, 1946 When handed in at Local Office 18th March, 1946 Port of Vancouver, B. C.

No. in Survey held at Vancouver & North Vancouver, Date, First Survey 31 Oct., 1945 Last Survey 14th March, 1946  
Reg. Book B.C. Constant attendance (Number of Visits 7)

on the Steel Single Screw Steamer "OTTAWA PALMER" Tons { Gross 911.29 Net 425.55

Vancouver and Built at North Vancouver, By whom built Burrard Dry Dock Co. Ltd. Yard No. 245 When built 1946

Engines made at Lachine, P.Q. By whom made Canadian Allis-Chalmers Engine No. 580 When made 1946  
Ltd. 888

Boilers made at Vancouver, B. C. By whom made Dominion Bridge Co. Ltd. Boiler No. 887 When made 1945

Registered Horse Power - Owners Canadian Government Port belonging to -

Nom. Horse Power as per Rule 162 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 Revs. per minute 146  
Dia. of Cylinders 13 1/2" x 22 3/4" x 38" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 7.5075" Crank pin dia. 7.875" Crank webs Mid. length breadth 13" Thickness parallel to axis 4-13/16"  
as fitted 7.875" Mid. length thickness 4-13/16" Thickness around eye-hole 3.937" Pin 4.187" Journal

Intermediate Shafts, diameter as per Rule 7.15" Thrust shaft, diameter at collars as per Rule 7.5075"  
as fitted 7.25" as fitted 7.875"

Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule 7.722" Is the shaft fitted with a continuous liner { tube }  
as fitted - as fitted 8.375" { screw } No

Bronze Liners, thickness in way of bushes as per Rule - Thickness between bushes as per Rule - Is the after end of the liner made watertight in the  
as fitted No liners fitted as fitted -

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 Yes If so, state type "Newark" Length of Bearing in Stern Bush next to and supporting propeller 3'-2"

Propeller, dia 9'-0" Pitch 8'-10" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 32.6 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 Two 6"x8 1/2"x13" Pumps connected to the { No. and size Two Ballast Pumps 7" x 8" x 10"  
{ How driven Steam Weirs Simplex Main Bilge Line { How driven Steam - Simplex

Ballast Pumps, No. and size Two 7" x 8" x 10" 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 One 2-1/2" aft. In Pump Room - In Holds, &c. One 2-1/2" P.&S. No.1 Hold; One 3" P.&S. No.2 Hold

Main Water Circulating Pump Direct Bilge Suctions, No. and size One - 6" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
No. and size One - 3" 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 Cast Brass Stools 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 - How are they protected -  
What pipes pass through the deep tanks No 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 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 No tunnel Is it fitted with a watertight door - worked from -

MAIN BOILERS, &c.— (Letter for record s) Total Heating Surface of Boilers 2790 sq. ft.  
Which Boilers are fitted with Forced Draft Both Which Boilers are fitted with Superheaters None fitted

No. and Description of Boilers 2 Single ended multitubular Working Pressure 200 lbs. sq. in.

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 24-11-44 Main Boilers 7-8-45 Auxiliary Boilers - Donkey Boilers -  
(If not state date of approval)

Superheaters - General Pumping Arrangements 24-1-45 Oil fuel Burning Piping Arrangements 8-10-45

### SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied

As per List forwarded with Vancouver Report No. 6789 - S.S. "OTTAWA PANDA"

The foregoing is a correct description.

Burrard Dry Dock Company, Limited

A. J. Hellenius Chief Eng.

Manufacturer



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002071-002078-0183

During progress of work in shops - - See Montreal Report No. 6776.  
 Dates of Survey while building { During erection on board vessel - - Constant attendance from 31st October, 1945 to 14th March, 1946  
 for Classification and Owners' Representation.  
 Total No. of visits - -

Dates of Examination of principal parts - Cylinders Slides Covers  
 Pistons  
 Crank shaft See Montreal Report No. 6776 Piston Rods Connecting rods  
 Thrust shaft 21 - 1 - 46 Intermediate shafts 21 - 1 - 46  
 Tube shaft Screw shaft 27 - 11 - 45 Propeller 27 - 11 - 45  
 Stern tube 23 - 11 - 45 Engine and boiler seatings 31 - 10 - 45 Engines holding down bolts 21 - 1 - 46  
 Completion of fitting sea connections 6 - 12 - 45  
 Completion of pumping arrangements 13 - 2 - 46 Boilers fixed 18 - 12 - 45 Engines tried under steam 11 - 2 - 46  
 Main boiler safety valves adjusted 11 - 2 - 46 Thickness of adjusting washers P.Blr. (P.41/64" S.Blr. (P.17/32"  
 Crank shaft material O.H. Steel Identification Mark M.D. Lloyd's No. 2157 7-11-45 Thrust shaft material O.H. Steel Identification Mark M.D. Lloyd's No. 4273 6-12-45  
 Intermediate shafts, material O.H. Steel Identification Marks T.M. Tube shaft, material - Identification Mark -  
 Screw shaft, material O.H. Steel Identification Mark T.M. Steam Pipes, material S.D. Steel Test pressure 600 lbs. Date of Test 5-2-46  
 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 -  
 Is this machinery duplicate of a previous case Yes  If so, state name of vessel S.S. "OTTAWA PANDA" (Vcr. Report No. 6789)

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 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 the Notation of \*L.M.C. 3,46. Screw shaft O.G. 2 - S.B. F.D.  
 Fitted for oil fuel 3,46. Flash point above 150°F.

Montreal fees charged in Montreal Report No. 6776

The amount of Entry Fee ... \$ : ) When applied for,  
 Special Vcr. \$ 100.00 : 28 Feb. 1946  
 Donkey Boiler Fee ... \$ : ) When received,  
 Travelling Expenses (if any) \$ 15.00 : 19  
 Owners' Representation charged on Hull Report.

D. J. Ansbald  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 14 JUN 1946

Assigned

+ LMC 3,46

FITTED FOR OIL FUEL 3,46 FLASH POINT ABOVE 150°F. F.D. O.G.



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