

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

2nd. June 45
Date of writing Report **Sept. 28, 1944** When handed in at Local Office **Sept. 27, 44** Port of **Montreal, Que. & Quebec, P.Q.**
No. in Survey held at **Montreal, Que. & Quebec, P.Q.** Date, First Survey **June 6-1944** Last Survey **June 1-1945**
Reg. Book. **Constant attendance**
-- on the **Twin Screw Transport Ferry HMS-LST (3) 3507**
Built at **LAUZON, P.Q.** By whom built **Davie Shipbuilding & Repairing Co. Ltd.** Yard No. **562** When built **1945**
Engines made at **MONTREAL, Que.** By whom made **CANADIAN PACIFIC RAILWAY COMPANY - ANGUS SHOPS** Engine No. **7-ET-11** When made **1944**
Boilers made at **ST. CATHARINES, ONT.** By whom made **Foster Wheeler Ltd.** Boiler No. **S.CMB307** When made **1944**
Registered Horse Power -- Owners **BRITISH ADMIRALTY** Port belonging to --
Nom. Horse Power as per Rule **749** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
Trade for which Vessel is intended **Naval Service**

ENGINES, &c.—Description of Engines **Four Cylinder Triple Expansion** Revs. per minute **185**
Dia of Cylinders **18½"x31"x38½"x38½"** Length of Stroke **30"** No. of Cylinders **4 each Engine** No. of Cranks **4 each Engine**
Crank shaft, dia. of journals as per Rule **10.0275"** Crank pin dia. **10.5"** Crank webs Mid. length breadth -- Thickness parallel to axis **6.5"**
as fitted **10.5"** Mid. length thickness -- Thickness around eye-hole **4.875"**
Intermediate Shafts, diameter as per Rule **9.55"** Thrust shaft, diameter at collars as per Rule **10.0275"**
as fitted **10.50"** as fitted **10.50"**
Tube Shafts, diameter as per Rule -- Screw Shaft, diameter as per Rule **10.76"** Is the ~~shaft~~ screw shaft fitted with a continuous liner --
as fitted -- as fitted **10.75"** as fitted --
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 propeller boss --
as fitted **No** as fitted -- 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 **5'-6"**
Propeller, dia. **10'-0"** Pitch **10'-2"** No. of Blades **3** Material **Bronze** whether Moveable **No** Total Developed Surface **35** 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 (No. and size **Four 8"x10½"x22"** Pumps connected to the { No. and size **Four 10"x8"x10" Duplex**
Pumps { How driven **Steam, Weirs.** Main Bilge Line { How driven **Steam, Two 30 ton ejectors in B.Rs.**
Ballast Pumps, No. and size **Two 14"x12"x12" Duplex** 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 **Two 2½" Direct Four 3" main Four 2½" hose connts. in E.R. Four 3" main Two 2½" hose connts. in B.R.**
In Pump Room **Forward, Three 3"** In Holds, &c. **All spaces outside E.R. B.R. & Pr. 3" main & 2½" main for cor-ferdams.**
In Pump Room Aft. **Three 3", One 5", One 2½" hose connections.**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **Two 9"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **Two 2½"** 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** Are they fitted with Valves or Cocks **Valves**
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 ~~xxx~~ covering plate **YES**
What Pipes pass through the bunkers **None** How are they protected --
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 ~~xxx~~ Hatch worked from **Lower Deck**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **12512 Sq. ft.**
Which Boilers are fitted with Forced Draft **BOTH** Which Boilers are fitted with Superheaters **NONE**
No. and Description of Boilers **Two Water Tube Yarrow type** Working Pressure **225 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 **Approved** **Approved**
PLANS. Are approved plans forwarded herewith for Shafting **London** Main Boilers **London** Auxiliary Boilers -- Donkey Boilers --
(If not state date of approval)
Superheaters -- General Pumping Arrangements -- Oil fuel Burning Piping Arrangements --

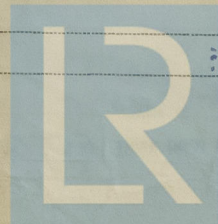
SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes**
State the principal additional spare gear supplied **As PER BRITISH ADMIRALTY REQUIREMENTS.**

The foregoing is a correct description
Canadian Pacific Railway Company

Per **J. D. Donald**
Asst. Works Manager, Munitions Dept.

Manufacturer.



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003592 002601-0170

Dates of Survey while building
During progress of work in shops - -
Various from April 8, 1944 to June 30, 1944 (Constant attendance)
During erection on board vessel - -
Various from June 6th.1944 to 1st. June 1945
Total No. of visits
Daily attendance

Dates of Examination of principal parts—Cylinders (Port) 10.4.44 (Stbd) 10.5.44 Slides (Port) 20.6.44 (Stbd) 28.5.44 Covers (Port) 17.6.44 (Stbd) 28.5.44
Pistons (Port) 15.5.44 (Stbd) 20.6.44 Rods (Port) 15.5.44 (Stbd) 30.5.44 Connecting rods (Port) 15.6.44 (Stbd) 30.5.44
Crank shaft (Port) 21.6.44 (Stbd) 26.6.44 Thrust shaft (Port) 21.12.43 (Stbd) 22.12.43 Intermediate shafts Port 26-8-44, Star. 25-8-44
Tube shaft 11th. & 13th. -9-44. Screw shaft P & S. 28-7-44 Propeller Port 26-8-44, Star. 25-8-44
Stern tube 11th. & 13th. -9-44. Engine and boiler seatings 21-8-44 Engines holding down bolts P & S. 18-1-45
Completion of fitting sea connections 21-10-44
Completion of pumping arrangements 27-4-45 Boilers fixed 2-4-45 Engines tried under steam 30-4-45
Main boiler safety valves adjusted 27-4-45 Thickness of adjusting washers Ps. .723" & .508" & Ss. .536" & .544" 43
Crank shaft material O.H. Steel Identification Mark Lloyd's Nos. P.2100 MD.21.6.44 Lloyd's Nos. P.8804 EER.21.12. 43
Intermediate shafts, material O.H. Steel Identification Mark S.2101 MD. Thrust shaft material O.H. Steel Identification Mark S.8808 EER.22.12. 43
Screw shaft, material OH Steel Identification Mark Port 7511, 9127-9144 Star. 7413, 9128-9163 Identification Mark --
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 C.N. 948
General Remarks (State quality of workmanship, opinions as to class, &c. These ENGINES have been constructed under Special Survey and in accordance with the Approved Plans and Instructions forwarded by the Admiralty, and approved by the Royal Canadian Navy. The materials and workmanship are, in my opinion, satisfactory. These ENGINES are fitted with welded steel bed plates, constructed in accordance with the Approved Plans. The materials used in the construction of these ENGINES have been tested by the Surveyors to this Society and the British Corporation, and finally examined by the undersigned and found satisfactory. Forging reports attached herewith.
These ENGINES have now been shipped to DAVIE SHIPBUILDING & REPAIRING CO. LIMITED, LAUZON, LEVIS, QUE. 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 & BOILERS for this Vessel have now been properly fitted on board & on completion tried under full working conditions & found satisfactory. The Safety Valves have been adjusted under Steam and tested for accumulation & it is recommended for the favourable consideration of the Committee that the record of L.M.C. 5,45 & the notation of T.S. OG 5,45 & "Fitted for oil Fuel, F.P. above 150° F." be made in the case of this Vessel.

The amount of Entry Fee ... £ 30:00 : When applied for,
Special ... £ 610:00 : 28th June 1945
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ Included
in Hull Rpt.

Committee's Minute

Assigned LMC* 6,45
Fitted for oil fuel 6,45 flash point above 150° F. O.G.

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



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