

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report October 30th, 42 When handed in at Local Office Oct. 30th, 42 Port of Vancouver, B. C.

No. in Survey held at Vancouver, B. C. Date, First Survey August 28th, 1942 Last Survey October 27th 1942  
 Reg. Book. (Number of Visits 17) Tons Gross 7133.58  
 Net 4243.53

on the Steel Single Screw Steamer "FORT SOURIS"

Built at Vancouver, B. C. By whom built West Coast Shipbuilders, Ltd. Yard No. 108 When built 1942

Engines made at Montreal By whom made Dominion Engineering Wks. Ltd. Engine No. 39 When made 1942  
 256

Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works, Ltd. Boiler No. 258 When made 1942  
 260

Registered Horse Power 229 Owners Minister of Munitions & Supply of Canada. 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 General Cargo

ENGINES, &c.—Description of Engines Triple Expansion. Superheat to 575° F. Revs. per minute 80

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 13.99" 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 (7½" Pin)  
(7½" Journal)

Intermediate Shafts, diameter as per Rule 13.33" Thrust shaft, diameter at collars as per Rule 13.99"  
 as fitted 13.5" as fitted 14.25"

Tube Shafts, diameter as per Rule -- Screw Shaft, diameter as per Rule 14.87" Is the tube 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 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Solid  
 as fitted .78125" as fitted .68" 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.  
 mean

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 (No. and size Two 8"x10½"x22" Pumps connected to the (No. and size Four (One) 10"x12"x10" (One) 9"x6"x10" Two Rams  
 type. Steam Worthington Simplex Main Bilge Line (How driven Duplex Steam Duplex Steam M.E.  
(One) 10"x12"x10" (Duplex) Lubricating Oil Pumps, including Spare Pump, No. and size None

Ballast Pumps, No. and size (One) 10"x12"x10" (Duplex)

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary bd  
 Bilge Pumps: In Engine and Boiler Room 1-3" Dia. Port 1-3" Dia. Star in Blr. Rm. 1-3" Dia. Port 1-3" Dia. Star  
 In Pump Room 1-2½" Dia. in Thrust recess. 1-4" Dia. to F.P. 1-3" Dia. P&S to Nos. 1-2-3-4 & 5 Holds.  
1-4" Dia. to A.P.

Main Water Circulating Pump Direct Bilge Suctions, No. and size (One) - 9" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size (One) 5" Dia. Star side 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. Main injection 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 brass covering plate Yes  
 What Pipes pass through the bunkers Steel Air Pipes to No. 4 D.B. Tanks How are they protected Steel Straps welded across frames  
 Bilge Suctions. No. 7 D.B. Air Pipes Have they been tested as per Rule Yes  
 What pipes pass through the deep tanks --

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 S) Total Heating Surface of Boilers 7140 Sq. Ft.

Which Boilers are fitted with Forced Draft All Three Which Boilers are fitted with Superheaters All Three

No. and Description of Boilers 3 Single ended Multitubular Working Pressure 220 lbs. per sq. 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 in U.K. Main Boilers Auxiliary Boilers Donkey Boilers  
 (If not state date of approval)

Superheaters Approved Plans in U.K. 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 List forwarded with Vancouver Report No. 5718 - S.S. "FORT ST. JAMES"

The foregoing is a correct description  
 WEST COAST SHIPBUILDERS LTD.

W. S. M. Laven  
 General Manager

Manufacturer.



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Lloyd's Register  
 Foundation

004986-009993-008



Dates of Survey while building  
During progress of work in shops - See Montreal Report No. 5704  
During erection on board vessel - 1942 - Aug. 28, Sept. 1, 8, 21, 24, 28, 30.  
Oct. 5, 7, 13, 14, 17, 20, 21, 22, 26, 27.  
Total No. of visits 17

Dates of Examination of principal parts - Cylinders Slides Covers  
Pistons Piston Rods Connecting rods  
Crank shaft Thrust shaft October 13th, 1942 Intermediate shafts October 13th, 1942  
Tube shaft See Montreal Report No. 5704. Screw shaft September 1st, 1942 Propeller September 1st, 1942  
Stern tube August 28th, 1942 Engine and boiler seatings October 13th, 1942 Engines holding down bolts October 13th, 1942  
Completion of fitting sea connections September 8th, 1942  
Completion of pumping arrangements October 22nd, 1942 Bilge pumps fixed September 27th, 1942 Engines tried under steam October 17th, 1942  
Main boiler safety valves adjusted October 14th, 1942 Thickness of adjusting washers P.B. 17/32 - 1/2 C.B. 41/64 - 37/64 S.B. 35/64 - 39/64  
Crank shaft material O.H. Steel Identification Mark Lloyd's 3874 H.S. Thrust shaft material O.H. Steel Identification Mark Lloyd's 6959  
Intermediate shafts, material O.H. Steel Identification Marks Lloyd's 5494 17-6-42 PWW 5499 17-6-42 PWW 5524 24-6-42 PWW  
Screw shaft, material O.H. Steel Identification Mark Lloyd's 6948 22-5-42 A.S. Steam Pipes, material S.D. Steel Test pressure 600 lbs. Date of Test Sept. 3/42  
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 S.S. "FORT CHILCOTIN" (Vancouver Report No. 5764)  
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 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. The machinery has also been surveyed during construction and installation on behalf of Wartime Merchant Shipping, 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. 10,42 Screw Shaft C.L. 3 S.E. Blrs. 220 lbs. per sq. inch F.D.

Montreal fees charged in Montreal Report No. 5704.

The amount of Entry Fee	£	:	When applied for,
Special (Ver.)	\$133.00	:	30th Oct. 1942
Donkey Boiler Fee	£	:	When received,
Travelling Expenses (if any)	\$20.00	:	✓ 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 12 JAN 1943  
Assigned Jan. 10, 42 J.D., CR.