

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 6th May, 1943 When handed in at Local Office 6th May, 1943 Port of Vancouver, B. C.
No. in Survey held at Vancouver, B. C. Date, First Survey 15th March, 1943 Last Survey 6th May, 1943
Reg. Book. (Number of Visits 21)
on the Steel Single Screw Steamer "FORT CARIBOU" Gross Tons 7131.92
Net Tons 4244.83
Built at Vancouver, B. C. By whom built Burrard Dry Dock Co. Ltd. Yard No. 171 When built 1943
Engines made at Montreal, P. Q. By whom made Canadian-Allis Chalmers, Ltd. Engine No. 235 When made 1943
Boilers made at Vancouver, B. C. By whom made Dominion Bridge Co. Ltd. Boiler No. (413, 415, 420) When made 1943
Registered Horse Power 229 Owners Minister of Munitions & Supply of Canada. Port belonging to
Nom. Horse Power as per Rule 504 ~~505~~ 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" Mid. length breadth -- Thickness parallel to axis 9" & 9½" L.P.
as fitted 14½" Crank pin dia. 14½" Crank webs -- shrunk (7½" Pin)
Intermediate Shafts, diameter as per Rule 13.33" Mid. length thickness -- Thickness around eye-hole (7½" Journal)
as fitted 13.5" (Shaft 8976 is 13.425) Thrust shaft, diameter at collars as per Rule 13.99"
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
as fitted .78125 as fitted .68" 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
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" mean 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 4½" 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 Main Bilge Line { No. and size Four (One) 10"x12"x10" (One) 9"x6"x10" Two Rams
Pumps (How driven) Steam Worthington Simplex { How driven Duplex Steam Duplex Steam M.E.
Ballast Pumps, No. and size (One) 10"x12"x10" (Duplex) Lubricating Oil Pumps, including Spare Pump, No. and size None
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 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 Eng. Rm., 1-2" 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 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 Steel air pipes to No. 4 D.B. tanks. How are they protected Steel straps welded across frames.
What pipes pass through the deep tanks No. 7 D.B. air pipes Have they been tested as per Rule Yes Under timber boards.
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 Approved Plans Main Boilers in U.K. 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

Burrard Dry Dock Company, Limited

Manufacturer.

President

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Lloyd's Register
Foundation

004646-004652-0260

Dates of Survey while building
During progress of work in shops - - See Montreal Report No. 5825
During erection on board vessel - - 1943. - March 15,16,27,29,30,31. April 5,7,13,15,16,19,20,26,28,30.
May 1,3,4,5,6.
Total No. of visits 21

Dates of Examination of principal parts - Cylinders Slides Covers
Pistons Piston Rods Connecting rods
Crank shaft See Montreal Report No. 5825 Thrust shaft 3rd May, 1943 Intermediate shafts 3rd May, 1943
Tube shaft Screw shaft 16th March, 1943 Propeller 16th March, 1943
Stern tube 15th March, 1943 Engine and boiler seatings 15th March, 1943 Engines holding down bolts 16th April, 1943
Completion of fitting sea connections 27th March, 1943
Completion of pumping arrangements 26th Apr., 1943 Boilers fixed 19th Apr., 1943 Engines tried under steam 28th Apr., 1943
Main boiler safety valves adjusted 26th Apr., 1943 Thickness of adjusting washers P33/64" 3" P39/64" 11/64" P1/2" 11/2"
Crank shaft material O.H. Steel Lloyd's 6343 Thrust shaft material O.H. Steel Lloyd's 1122
Intermediate shafts, material O.H. Steel Lloyd's 1310 EER 11-12-42 1424 EER 18-12-42 8735 EER 25-9-42 1405 EER 17-12-42 8976 EER 24-10-42
Screw shaft, material O.H. Steel Lloyd's 2022 EER Steam Pipes, material S.D. Steel Test pressure 660 lbs. Date of Test 20th
Is an installation fitted for burning oil fuel No WEB 8-3-43 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 ST. JAMES" (Ver. Report No. 5718)
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. 5,43 Screw Shaft C.L. 3 S.E. Blrs. 220 lbs. per sq. inch F.D.

Montreal fees charged in Montreal Report No. 5825

The amount of Entry Fee ... £	:	When applied for,
Special (Ver.) ... £	133.00	6th May 1943
Donkey Boiler Fee ... £	:	When received,
Travelling Expenses (if any) £	20.00	19

W.E. Baillie
Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 17 AUG 1943

Committee's Minute

Assigned

+LMC 5.43 JD. CL



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