

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 31st May, 1943 When handed in at Local Office 31st May, 1943 Port of Vancouver, B. C.

No. in Survey held at Vancouver, B. C. Date, First Survey 1st April, 1943 Last Survey 25th May, 1943

Reg. Book. 25 (Number of Visits 25)

-- on the Steel Single Screw Steamer "FORT CUMBERLAND" Tons {Gross 7133.61
Net 4243.79

Built at Vancouver, B.C. By whom built Burrard Dry Dock Co. Ltd. Yard No. 172 When built 1943

Engines made at Montreal, P.Q. By whom made Canadian-Allis Chalmers, Ltd. Engine No. 237 When made 1943

Boilers made at Vancouver, B. C. By whom made Dominion Bridge Co. Ltd. Boiler No. (436)
(439)
(440) When made 1943

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 webs shrunk Mid. length breadth --- Thickness parallel to axis 9" & 9½" L.P.
as fitted 14½" Mid. length thickness --- Thickness around eye-hole (7½" Pin)
as per Rule 13.33" Thrust shaft, diameter at collars as per Rule 13.99" (7½" Journal)
as fitted 13.5" as fitted 14.25"

Intermediate Shafts, diameter as per Rule 14.87" Is the (tube) shaft fitted with a continuous liner Yes
as fitted 15.25" as per Rule 15.65"

Tube Shafts, diameter as per Rule .75" Screw Shaft, diameter as fitted .78125 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

Bronze Liners, thickness in way of bushes as per Rule .78125 Thickness between bushes as fitted .68" 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

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.

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 Main Bilge Line { No. and size Four (One) 10"x12"x10" (One) 9"x6"x10" Two Rams
Pumps (How driven Steam Weir Simplex Type 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 Eng. Rm., 1-2" Dia. in Thrust Recess.

In Pump Room 1-2-1/2" Dia. in tunnel well In Holds, &c. 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 stowage 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 under limber boards.

What pipes pass through the deep tanks Bilge Suctions, No. 7 D.B. Air pipes Have they been tested as per Rule Yes

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 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.

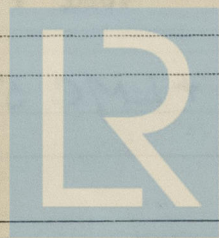
Has the spare gear required by the Rules been supplied Yes

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
Burrard Dry Dock Company, Limited

Manufacturer.



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004852-004860-0224

During progress of
work in shops - - -

See Montreal Report No. 5827

Dates
of Survey
while
building

During erection on
board vessel - - -

1943. April 1, 2, 3, 8, 10, 16, 20, 22, 28, 30 . . .
May 3, 4, 6, 7, 8, 10, 11, 13, 17, 18, 19, 20, 21, 24, 25.

Total No. of visits 25.

Dates of Examination of principal parts - Cylinders

Slides

Covers

Pistons

Piston Rods

Connecting rods

Crank shaft

See Montreal Report
No. 5827.

Thrust shaft 30th April, 1943

Intermediate shafts 30th April, 1943

Tube shaft

Screw shaft 2nd April, 1943

Propeller 3rd April, 1943

Stern tube 1st April, 1943

Engine and boiler seatings 1st April, 1943

Engines holding down bolts 4th May, 1943

Completion of fitting sea connections

8th April, 1943

Completion of pumping arrangements 17th May, 1943

Boilers fixed 11th May, 1943

Engines tried under steam 17th May, 1943

Main boiler safety valves adjusted 17th May, 1943

Thickness of adjusting washers

P.H. 3/32" 23/32" P.H. 5/16" S.H. 1/2" 3/4"

Crank shaft material O.H. Steel

Identification Mark Lloyd's 6726 22-3-43 HGS

Thrust shaft material O.H. Steel

Identification Mark Lloyd's 1694 22-3-43 HGS

Intermediate shafts, material O.H. Steel

Identification Marks Lloyd's 1421 17-12-42 EER

1448 16-12-42 EER

1354 16-12-42 EER

Identification Mark

Screw shaft, material O.H. Steel

Identification Mark Lloyd's 1993 8-2-43

Steam Pipes, material S.D. Steel Test pressure 660 lbs. Date of Test 13th May/43

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 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 specification 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 M.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. 5827.

The amount of Entry Fee	£	:	:	When applied for,
Special (Ver.)	£	\$133.00	:	25 th May 1943
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	\$ 20.00	:	✓ 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+LMC 5.43: F.D. C.L.



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