Rpt. 4. No. 5905

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 7 JUN 1943

Date of writing Report 20th Apr., 1943 When handed in at Local Office 20th Apr., 1943 Port of Vancouver, B. C.

No. in Reg. Book. -- Survey held at Vancouver, B. C. Date, First Survey 3rd March, 1943 Last Survey 20th April, 1943 (Number of Visits 24)

on the Steel Single Screw Steamer "FORT DEASE LAKE" Tons Gross 7125.77 Net 4247.49

Built at Vancouver, B.C. By whom built Burrard Dry Dock Co. Ltd. Yard No. 163 When built 1943

Engines made at Montreal, P.Q. By whom made Dominion Engineering Wks. Engine No. 80 When made 1943

Boilers made at Vancouver, B.C. By whom made Dominion Bridge Co.Ltd. Boiler No. 399 401 403 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" as fitted 14½" Crank pin dia. 14-1/4" Crank webs Mid. length breadth -- Mid. length thickness -- shrunk Thickness parallel to axis 9" & 9½" L.P. (7⅛" Pin Thickness around eye-hole (7⅝" Journal

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

Tube Shafts, diameter as per Rule -- as fitted -- Screw Shaft, diameter as per Rule 14.87" as fitted 15.25" Is the {~~tube~~ screw} shaft fitted with a continuous liner { -- Yes

Bronze Liners, thickness in way of bushes as per Rule .75" as fitted .78125" Thickness between bushes as per Rule .565" 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" 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 Pumps { No. and size Two (10"x7"x24") How driven Steam Worthington Simplex type. Pumps connected to the Main Bilge Line { No. and size Four (One) 10"x12"x10" (One) 9"x6"x10" Two Rams 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 bd in Blr. Rm., 1-3" Dia. Port, 1-3" Dia. Star bd In Engine Rm, 1-2" Dia. in Thrust Recess. In Pump Room 1-2½" 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 bd 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 fitted to steel tube through D.B. tank. 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 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 Bilge Suctions. How are they protected Steel Straps welded across frames, under Limber Boards

What pipes pass through the deep tanks 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) 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

President

Manufacturer.

002838-002845-0089

4. 5905.

Dates of Survey while building — During progress of work in shops: See Montreal Report No.5821

During erection on board vessel: Mar. 3,10,12,13,15,19,22,23,27,29,30,31.
Apr. 1,2,5,9,10,13,14,15,16,17,19,20.

Total No. of visits 24

Dates of Examination of principal parts — Cylinders ... Slides ... Covers ...

Pistons ... Piston Rods ... Connecting rods ...

Crank shaft See Montreal Report No. 5821 ... Thrust shaft 5th April, 1943 ... Intermediate shafts 5th April, 1943

Tube shaft ... Screw shaft 3rd March, 1943 ... Propeller 3rd March, 1943

Stern tube 2nd March, 1943 ... Engine and boiler seatings 10th March, 1943 ... Engines holding down bolts 2nd April, 1943

Completion of fitting sea connections 10th March, 1943

Completion of pumping arrangements 9th April,1943 ... Boilers fixed 1st April,1943 ... Engines tried under steam 13th April, 1943

Main boiler safety valves adjusted 10th April,1943 ... Thickness of adjusting washers P41/64"-25/32" RBrS21/32" P25/64"-3/4" C.Blr.S27/64" P19/32"-23/ S.Blr.S 5/8"

Crank shaft material O.H. Steel ... Identification Mark Lloyd's 3915 H.S. 9-2-43 ... Thrust shaft material O.H.Steel ... Identification Mark Lloyd'sEER 24-11-4 390 HS 3-2-43

Intermediate shafts, material O.H.Steel ... Identification Marks Lloyd's 8999 EER 29-10-42 9506 EER 29-10-42 8974 EER 24-10-42 9515 EER 29-10-42 9502 EER 29-10-42 9517 EER 29-10-42 ... Tube shaft, material ... Identification Mark ...

Screw shaft, material O.H.Steel ... Identification Mark Lloyd's 1776 E.E.R. 27-1-43 ... Steam Pipes, material S.D.Steel ... Test pressure 660 lbs. ... Date of Test 5th Apr.

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" (Vcr. 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 Montre Surveyors and installed on board under special survey in accordance with the approved plans, New Yo letters and otherwise in conformity with the Society's Rules. The materials and workmanship are go and the tests required by the Rules have been satisfactorily carried out. The whole installation h 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 specific 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 Regist Book with Notation of ✠L.M.C. 4,43 Screw Shaft C.L. 3 S.E. Blrs. 220 lbs. per sq. inch F.D.

Certificate to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.)

Montreal fees charged in Montreal Report No.5821

The amount of Entry Fee ...	£ : :	When applied for, 20th Apr. 1943	
Special (Var.) ...	£$133.00 :		
Donkey Boiler Fee ...	£ : :	When received, 19	
Travelling Expenses (if any)	£$ 20.00 :		

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

FRI. 11 JUN 1943

Committee's Minute

Assigned ✠L.M.C. 4.43. J.D. C.L.