

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

1 OCT 1942

Date of writing Report **July 24th 1942** When handed in at Local Office **July 24th 1942** Port of **Vancouver, B. C.**

No. in Survey held at **Vancouver, B. C.** Date, First Survey **April 23rd, 1942** Last Survey **July 18th 1942**

Reg. Book. **---** on the **Steel Single Screw Steamer "FORT PINE"** (Number of Visits **25**) Tons {Gross **7133.08**
Net **4256.71**

Built at **Vancouver, B. C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **139** When built **1942**

Engines made at **Montreal, P.Q.** By whom made **Dominion Engineering Co. Ltd.** Engine No. **23** When made **1942**

Boilers made at **Vancouver, B. C.** By whom made **Dominion Bridge Co. Ltd.** Boiler No. **187** When made **1942**

Registered Horse Power **229** Owners **His Majesty's Government in the United Kingdom.** 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 **---**

ENGINES, &c.—Description of Engines **Triple Expansion** 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. **14-1/4"** Crank webs Mid. length breadth **---** Thickness parallel to axis **9" & 9½" L.P.**

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"** Thickness around eye-hole **7½" Pin**

Tube Shafts, diameter as per Rule **---** as fitted **---** Screw Shaft, diameter as per Rule **14.87"** as fitted **15.25"** Is the 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 **.68"** 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**

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 Pump Rm. 1-2½" Dia. in Tunnel well.** In Holds, &c. **1-4" Dia. to F.P. 1-3" Dia. P&S to in Thrust Recess.**

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** Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates **Yes** Are the Blow Off Cocks fitted with a spigot and brass covering plate **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 **Below**

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 **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 Main Boilers** Auxiliary Boilers **---** Donkey Boilers **---**

(If not state date of approval) **U.K.**

Superheaters **Approved Plans in General Pumping Arrangements** Oil fuel Burning Piping Arrangements **---**

U.K.

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 Vancr. Report No. 5718 - S.S. "FORT ST. JAMES"

The foregoing is a correct description

Burrard Dry Dock Company, Limited

Manufacturer.

President

008417-008427-0172



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Dates of Survey while building
During progress of work in shops - - See Montreal Report No. 5631
During erection on board vessel - - 1942.- April 23, May 4,14,15,21,28,29. June 1-2-5-11-15-23-27
July 2-8-9-10-11-12-13-15-16-17-18.
Total No. of visits 25

Dates of Examination of principal parts - Cylinders Slides Covers
Pistons Piston Rods Connecting rods
Crank shaft Thrust shaft July 10th, 1942 Intermediate shafts July 10th, 1942
Tube shaft See Montreal Rpt. No. 5631. Screw shaft May 28th, 1942 Propeller May 29th, 1942
Stern tube May 28th, 1942 Engine and boiler seatings June 2nd, 1942 Engines holding down bolts July 10th, 1942
Completion of fitting sea connections May 28th, 1942
Completion of pumping arrangements July 11th, 1942 Boilers fixed June 5th, 1942 Engines tried under steam July 12th, 1942
Main boiler safety valves adjusted July 10th, 1942 Thickness of adjusting washers R.Hr. @ 11/16" Cent. (P 33/64" S 33/64" S 7/16")
Crank shaft material O.H. Steel Identification Mark 3234 H.S. 10-4-42 Thrust shaft material O.H. Steel Identification Mark Lloyd's 373
Intermediate shafts, material O.H. Steel Identification Marks Lloyd's 6507 JH13-3-42 6522 AS19-3-42 4687 JH11-3-42 Lloyd's 373
Screw shaft, material O.H. Steel Identification Mark Lloyd's 6506 JH13-3-42 6515 JH16-3-42 Identification Mark HS 7-4-42
Steam Pipes, material SD Steel Test pressure 660 lbs. Date of Test June 15th
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 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. 7,42 Screw Shaft C.L. 3 S.E. Blrs. 220 Lbs. per Sq. inch F.D.

Montreal fees charged in Montreal Rpt. No. 5631

The amount of Entry Fee ... £	:	:	When applied for,
Special (Ver.) ... £	133.00	:	22nd July 1942
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	✓	:	✓

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

Committee's Minute

TUE 10 NOV 1942

Assigned



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