

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 11 JAN 1943

Date of writing Report Oct. 20th, 1942 When handed in at Local Office Oct. 20th, 1942 Port of Vancouver, B. C.

No. in Survey held at Prince Rupert, B. C. Date, First Survey 17th June, 1942 Last Survey 7th October, 1942
Reg. Book. (Number of Visits 25)on the Steel Single Screw Steamer "FORT RUPERT" Tons {Gross 7141.67
Net 4262.44

Built at Prince Rupert, B.C. By whom built Prince Rupert Dry Dock & Shipyard Yard No. 44 When built 1942

Engines made at Montreal By whom made Dominion Engineering Wks. Ltd. Engine No. 22 When made 1942

Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works, Ltd. Boiler No. 203 205 & 207 When made 1942

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. 14½" 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 (7½" Journal

Tube Shafts, diameter as per Rule -- as fitted -- Screw Shaft, diameter as per Rule 14.87 as fitted 15.25" Is the tube 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 (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 Worthington Simplex Main Bilge Line { How driven Duplex Steam Duplex Steam M.E.

Ballast Pumps, No. and size type (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 Engine Room 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 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 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 under Limber Boards. Yes

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

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 Auxiliary Boilers Donkey Boilers

(If not state date of approval) Superheaters Approved Plans in 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

B. Allen Manufacturer.

Ass't to General Manager



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PILLAR

Dates
of Survey
while
building

During progress of
work in shops - -

See Montreal Report No. 5630

During erection on
board vessel - - -

1942. June 17, 20, 24, 30 July 8. August 1, 3, 4, 5, 12, 14, 21

September 2, 7, 17, 18, 23, 24 October 1, 2, 3, 4, 5, 6, 7.

Total No. of visits 25

Dates of Examination of principal parts — Cylinders

Slides

Covers

Pistons

Piston Rods

Connecting rods

Crank shaft

Thrust shaft 20th June, 1942

Intermediate shafts 20th June, 1942

Tube shaft

Screw shaft 20th June, 1942

Propeller 24th June, 1942

Stern tube 17th June, 1942

Engine and boiler seatings 1st August, 1942

Engines holding down bolts 2nd September, 1942

Completion of fitting sea connections June 30th, 1942

Completion of pumping arrangements Sept. 2nd, 1942 Boilers fixed Sept. 2nd, 1942 Engines tried under steam 4th October, 1942

Main boiler safety valves adjusted 3rd October, 1942 Thickness of adjusting washers Star Bd Blr. Cent. Blr. Port Blr.

Crank shaft material O.H. Steel Identification Mark Lloyd's 3233 A.R. 6-4-42 Thrust shaft material O.H. Steel Identification Mark S.496 P.575 S.668 P.649 S.351 P.538 B.C. Test 4019 FRM 9-10-42 HS 7-4-42

Intermediate shafts, material O.H. Steel Identification Mark Lloyd's 5066, 5067, 5091, 5094 5112 & 5113 6-2-42 TM Tube shaft, material 6-2-42 TM Identification Mark

Screw shaft, material O.H. Steel Identification Mark Lloyd's 4122 29-12-41 Steam 1 p.p., material S.D. Steel Test pressure 440 lbs. per sq. inch. 600 Sept. 17/42

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 STIKINE" (Vancouver Report No. 5788)

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 A.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 Rpt. No. 5630

The amount of Entry Fee ... £	:	When applied for,
Special (Vcr.) ... £133.00	:	8th Oct., 1942
Donkey Boiler Fee ... £	:	When received,
Travelling Expenses (if any) £100.00	:	✓ 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 15 JAN 1943

+ Amb. 10.42
22, Cd.



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