

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

18 SEP 1942

Date of writing Report **15th July 1942** When handed in at Local Office **15th July 1942** Port of **Vancouver, B. C.**

No. in Survey held at **Vancouver, B. C.** Date, First Survey **April 26th, 1942** Last Survey **July 7th 1942**

Reg. Book. **---** (Number of Visits **15**)

--- on the **Steel Single Screw Steamer "FORT CHIPEWYAN"** Tons **Gross 7135.91**
Net 4257.91

Built at **Vancouver, B.C.** By whom built **West Coast Shipbuilders, Ltd.** Yard No. **103** When built **1942**

Engines made at **Toronto** By whom made **John Inglis & Son** Engine No. **76** When made **1942**

Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd.** Boiler No. **174** When made **23-4-42**
176 When made **25-4-42**
178 When made **30-4-42**

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 **---**

ENGINES, &c.—Description of Engines **Triple Expansion** Revs. per minute **80**

Dia of Cylinders **24 1/2" 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 1/2"** Mid. length breadth **---** Thickness parallel to axis **9" x 9 1/2" L.P.**
as fitted **14 1/2"** Crank webs **---** Mid. length thickness **---** Thickness around eye-hole **7 1/2" Pin**

Intermediate Shafts, diameter as per Rule **13.33"** Thrust shaft, diameter at collars as per Rule **13.99"**
as fitted **13.5"** as fitted **14.25"** **7 3/8" Journal**

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

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 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**
as fitted **.78125"** as fitted **.68"** 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 **4 1/2"** Stroke **26"** Can one be overhauled while the other is at work **Yes**

Feed (No. and size **Two- 8" x 10 1/2" x 22"** Pumps connected to the Main Bilge Line { No. and size **Four (One) 10" x 12" x 10" (One) 9" x 6" x 10" Two Rams**
Pumps (How driven **Steam- Weir Simplex type** Main Bilge Line { How driven **Duplex Steam Duplex Steam M.E.**

Ballast Pumps, No. and size **(One) 10" x 12" x 10" (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 Hr. Rm. **1-3" Dia. Port 1-3" Dia. Star**—In Eng. Rm. **1-2" Dia. in Thrust Recess**
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 **---** fitted to steel tube 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 **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 in U.K.** Main Boilers Auxiliary Boilers Donkey Boilers

(If not state date of approval)

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

The foregoing is a correct description
WEST COAST SHIPBUILDERS LTD.

W. M. Lane

Manufacturer.

General Manager & Director



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Lloyd's Register Foundation

003503-003512-0185

During progress of work in shops - - See Toronto Report No. 846.

Dates of Survey while building { During erection on board vessel - - - } 1942 April 26, 30 May 18, 25 June 3, 9, 11, 15, 16, 18, 22, 24
 July 1, 3, 7.

Total No. of visits 15

Dates of Examination of principal parts - Cylinders Slides Covers

Pistons Piston Rods Connecting rods

Crank shaft Thrust shaft June 3rd, 1942 Intermediate shafts June 3rd, 1942

Tube shaft See Toronto Report No. 846 Screw shaft April 26th, 1942 Propeller April 26th, 1942

Stern tube April 20th, 1942 Engine and boiler seatings May 18th, 1942 Engines holding down bolts May 18th, 1942

Completion of fitting sea connections June 9th, 1942

Completion of pumping arrangements June 9th, 1942 Boilers fixed May 18th, 1942 Engines tried under steam June 29th, 1942

Main boiler safety valves adjusted June 24th, 1942 Thickness of adjusting washers 18/32 - 18/32 21/32 - 17/32 16/32 - 17/32

Crank shaft material O.H. Steel Identification Mark Lloyd's 7877 JKH Thrust shaft material O.H. Steel Identification Mark Lloyd's 7895

Intermediate shafts, material O.H. Steel Identification Mark Lloyd's 4033 EM (3843 14-11-41) (3922 8-12-41) (3841 14-11-41) EM JKH 17-10-41

Screw shaft, material Identification Mark 17-10-41 Steam Pipes, material S.D. Steel Test pressure 660 lbs. per sq. inch Date of Test June 15th 1942.

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 CHILCOTIN" (Vancouver Report No. 5764)

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey of the Toronto 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./ Screw Shaft C.L. 3 S.E. Blrs. 220 Lbs. per Sq. inch F.D.

Toronto fees charged in Toronto Rpt. No. 846

The amount of Entry Fee	£	133.00	When applied for, 9th July 1942
Special	£	20.00	When received, 19
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£	20.00	

R. Knox
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 22 SEP 1942

Assigned + LMC 7.42 FD CL.



Certificate to be sent to

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