

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **8 NOV 1943**

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

No. in Survey held at **Vancouver, B. C.** Date, First Survey **11th May, 1943** Last Survey **28th August, 1943**

Reg. Book. (Number of Visits **39**)

-- on the **Steel Single Screw Steamer "FORT CLATSOP"** Tons {Gross **7157.37**  
Net **4246.03**

Built at **North Vancouver, B.C.** By whom built **North Van Ship Repairs, Ltd.** Yard No. **128** When built **1943**

Engines made at **Lachine, P.Q.** By whom made **Canadian Allis-Chalmers** Engine No. **244** When made **1943**

Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works Ltd.** Boiler No. **493** When made **1943**

Registered Horse Power **229** Owners **Minister of Munitions & Supply of Canada.** Port belonging to **--**

Nom. Horse Power as per Rule **636** 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 **450° F.** Revs. per minute **76**

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** 14.21 Crank pin dia. **14½"** Mid. length breadth **--** Thickness parallel to axis **9" & 9½" L.P.**  
as fitted **14½"** Crank webs **--** Mid. length thickness **--** shrunk **(7½" Pin)**

Intermediate Shafts, diameter as per Rule **13.33** 13.53 Thrust shaft, diameter at collars as per Rule **13.99** 14.21  
as fitted **13.5** as fitted **14.25"** **(7½" Journal)**

Tube Shafts, diameter as per Rule **--** Screw Shaft, diameter as per Rule **14.87"** 15.07  
as fitted **--** 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"** Thickness between bushes as per Rule **.565"**  
as fitted **.78125** 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 12" x 8" x 24"** Pumps connected to the {No. and size **Four (Two) 10"x11"x12"** Two Rams  
Pumps {How driven **Steam Worthington Simplex** Main Bilge Line {How driven **Duplex - Steam** M.E.

Ballast Pumps, No. and size **(One) 10"x11"x12" (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 **(One) 3" P&S, (One) 3" Thrust Recess, (One) 2½" Tunnel well, (One) 3" P&S**

**6" Pump Room For'd. & Aft Cofferdams** In Holds, &c. **(One) 3" P&S Nos. 1, 2, 3, 4 & 5 Holds, (One) 4"**

**P&S No. 1 & No. 2 Deep Tanks, (One) 6" P&S No. 3 Deep Tanks.**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **(One) 10"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **(Two) 5"** 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 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 **None** How are they protected **--**

What pipes pass through the deep tanks **Bilge, ballast & 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 **9704 sq. ft.**

Which Boilers are fitted with Forced Draft **Both** Which Boilers are fitted with Superheaters **Both**

No. and Description of Boilers **(Two) Babcock & Wilcox W.T.** Working Pressure **250 lbs. per sq. inch (Sp. 230.66)**

**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 Shaping **Approved Plans** Main Boilers **17-7-43** Auxiliary Boilers **--** Donkey Boilers **--**

(If not state date of approval)

Superheaters **17-7-43** General Pumping Arrangements **6-7-43** Oil fuel Burning Piping Arrangements **9-7-43**

## 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. 5942 - S.S. "FORT COLUMBIA"

The foregoing is a correct description

**Donald M. Denno**

NORTH VAN SHIP REPAIRS LIMITED.

Manufacturer.



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Lloyd's Register  
Foundation

004477-004480-0229



Dates of Survey while building  
 During progress of work in shops - - See Montreal Report No. 5910  
 During erection on board vessel - - 1943. May 11, 12. June 4, 7, 9, 10, 13, 16, 26, 28.  
 July 9, 10, 24, 28, 30, 31. Aug. 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28.  
 Total No. of visits 39

Dates of Examination of principal parts—Cylinders \_\_\_\_\_ Slides \_\_\_\_\_ Covers \_\_\_\_\_  
 Pistons \_\_\_\_\_ Piston Rods \_\_\_\_\_ Connecting rods \_\_\_\_\_  
 Crank shaft See Montreal Report No. 5910 Thrust shaft 30-7-43 Intermediate shafts 4-8-43  
 Tube shaft \_\_\_\_\_ Screw shaft 13-6-43 Propeller 16-6-43  
 Stern tube 13-6-43 Engine and boiler seatings 28-6-43 Engines holding down bolts 28-7-43  
 Completion of fitting sea connections 26-6-43  
 Completion of pumping arrangements 23-8-43 Boilers fixed 6-7-43 Engines tried under steam 16-8-43  
 Main boiler safety valves adjusted 16-8-43 Thickness of adjusting washers Port Blr. 8288 Star Blr. 8288  
 Crank shaft material O.H. Steel Lloyd's 8288 Identification Mark 22-6-43 HGS Thrust shaft material O.H. Steel Lloyd's 3587 Identification Mark 22-6-43 HGS  
 Intermediate shafts, material O.H. Steel Lloyd's 3904 3-4-43 EER 3545 9-3-43 EER 8182 8-4-43 PWW  
 Screw shaft, material O.H. Steel Lloyd's 3496 4-3-43 EER 3687 20-3-43 EER 8186 8-4-43 PWW  
 Steam Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 12-8-43  
 Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes  
 Have the requirements of the Rules for the use of oil as fuel been complied with Yes  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes If so, have the requirements of the Rules been complied with Yes  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with No  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "FORT COLUMBIA" (Ver. Rpt. No. 5942)  
 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 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 \*L.M.C. 8,43 Screw Shaft C.L. 2 - W.T. Blrs. (Spt.) 250 lbs. per sq. inch F.D. Fitted for oil fuel 8,43 Flash point above 150°F.

Montreal fees charged in Montreal Report No. 5910

The amount of Entry Fee ... £ :  
 Special (Ver.) ... £ \$133.00 :  
 Donkey Boiler Fee ... £ :  
 Travelling Expenses (if any) £ \$ 20.00 :  
 When applied for, 31<sup>st</sup> Aug. 1943  
 When received, 19

W. B. Baillie & D. J. Archibald (Acting)  
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute TUES. 21 DEC 1943

Assigned + LMC 8.42