

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **DEC 1943**

18th Oct., 1943 When handed in at Local Office 18th Oct., 1943 Port of **Vancouver, B.C.**

Survey held at **North Vancouver, B.C.** Date, First Survey **11th June, 1943** Last Survey **9th Oct., 1943**

(Number of Visits **32**)

on the **Steel Single Screw Steamer "FORT PANMURE"** Tons {Gross **7155.26**
Net **4238.12**

Built at **North Vancouver, B.C.** By whom built **North Van Ship Repairs Ltd.** Yard No. **130** When built **1943**

Engines made at **Toronto, Ontario** By whom made **John Inglis Co. Ltd.** Engine No. **276** When made **1943**

Boilers made at **Vancouver, B.C.** By whom made **Vancouver Iron Works Ltd.** Boiler No. **517 & 514** When made **1943**

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

Dom. 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** Crank pin dia. **14½"** Mid. length breadth **--** Thickness parallel to axis **9" & 9½" L.P.**

as fitted **14½"** Crank webs **--** Mid. length thickness **--** Thickness around eye-hole **7½" 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"** **7½" Journal**

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

as fitted **--** as fitted **15.25"** as per Rule **.75"** as per Rule **.565"** as fitted **.68"**

Bronze Liners, thickness in way of bushes as fitted **.78125"** Thickness between bushes 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 **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 12" x 8" x 24"** Pumps connected to the Main Bilge Line {No. and size **Four. (Two) 10"x11"x12"** Two Rams

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, **One 3" P & S. One 3" Thrust Recess. One 2½" Tunnel Well. One 3" P & S**

Bilge Pumps;—In Engine and Boiler 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 **No: to cast steel** Are they fitted with Valves or Cocks **Yes**

Are they fixed sufficiently high on the ship's side to be seen without lifting the stowage 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, Boiler & 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. in. **(Spec. 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 Shafting **approved plans in U.K.** Main Boilers **17-7-43.** Auxiliary Boilers **--** Donkey Boilers **--**

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

As fitted plan attached.
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
NORTH VAN SHIP REPAIRS LIMITED
Donald M. Irvine
Manager

Manufacturer.



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Lloyd's Register
Foundation

010405 - 010415 - 0108

March 29th, 1943 and subsequently per B.C. Report dated 30/8/43, attach herewi

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

June-11,18. July-6,7,17,21,23. Aug.-2,28,31. Sept.-2,13,14,16,18,20,23,24,25,27,28,29,30. Oct.-1,2,4,6,7,8 & 9.

Total No. of visits 32

Dates of Examination of principal parts — Cylinders Slides Covers

Pistons

Connecting rods

Crank shaft Thrust shaft 14th September, 1943. Intermediate shafts 14th September, 1943.

Tube shaft Screw shaft 17th July, 1943. Propeller 23rd July, 1943.

Stern tube 21st July, 1943 Engine and boiler seatings 2nd August, 1943 Engines holding down bolts 2nd September, 1943

Completion of fitting sea connections 2nd August, 1943.

Completion of pumping arrangements 1st Oct., 1943. Boilers fixed 5th Aug. 1943. Engines tried under steam 27th Sept., 1943

Main boiler safety valves adjusted 27th Sept. 1943. Thickness of compression Port Blr. A.1-13/2" Sp. 47 Star. Blr. A.1-13/2" F.1-21/6"

Crank shaft material O.H. Steel Identification Mark Lloyd's 5323c LJT Thrust shaft material O.H. Steel Identification Mark Lloyd's 3672

Intermediate shafts, material O.H. Steel Identification Mark Lloyd's 8192 8-4-43 PWW Lloyd's 8198 14-4-43 PWW Lloyd's 8210

Screw shaft, material O.H. Steel Identification Mark Lloyd's 8194 14-4-43 PWW Lloyd's 8206 14-4-43 PWW Lloyd's 8243

Steam Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 23rd Sept. 1943

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" Vanc. Rpt. No. 59

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

The machinery of this vessel has been constructed under special survey of the British Corporation Toronto Surveyors and installed on board under this Society's Special Survey. 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 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.* 10,43. Screw Shaft C.L. 2 - W.T. Blrs. (Spt.) 250 lbs. per sq.in. F.D. Fitted for oil fuel 10,43. Flash point above 150°F.

British Corporation Certificate dated 30th August, 1943 attached.

Certificate to be sent to

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

The amount of Entry Fee \$ 30.00

Special B.C. \$ 267.00

Donkey Boiler Fee L.R. (Ver) £ 133.00

Travelling Expenses L.R. (Ver) £ 20.00

B.C. (if any) £ 20.00

When applied for, 13 Oct. 1943

When received, 19

W. C. Baillie D. J. Archibald (Acting)

Engineer Surveyor to Lloyd's Register of Shipping.

TUE 8. 14 DEC 1943

Committee's Minute

Assigned hmc 10.43