

pt. 4
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REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 7 DEC 1943

Date of writing Report 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 --

Nom. Horse Power as per Rule 636 628 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 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 14.21 as fitted 14 1/4" Crank pin dia. 14 1/4" Mid. length breadth -- Thickness parallel to axis 9" & 9 1/2" L.P.

Intermediate Shafts, diameter as per Rule 13.33 13.53 as fitted 13.5" Crank webs shrunk Mid. length thickness -- Thickness around eye-hole 7 1/8" Pin 7 3/8" Journal

Tube Shafts, diameter as per Rule -- as fitted -- Screw Shaft, diameter as per Rule 14.87 15.07 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" 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 4 1/2" 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,

Bilge Pumps;—In Engine and Boiler Room One 3" P & S. One 3" Thrust Recess. One 2 1/2" Tunnel Well. One 3" P & S

In 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 No: to cast steel stands. 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. (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 Shafting in U.K. 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.

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.



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

Dates of Survey while building

- During progress of work in shops - -
- During erection on board vessel - - -
- 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.

Examined by British Corporation Surveyors.

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 1/2" Star Blr. A. 1 1/2"

Crank shaft material O.H. Steel Identification Mark Lloyd's 5323c 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	When applied for,
Special B.C.	\$ 267.00	13, Oct. 1943
L.R. (Vcr)	£ 133.00	
Donkey Boiler Fee	£ 20.00	When received,
L.R. (Vcr)	£ 20.00	19
Travelling Expenses (if any)	£ 20.00	

B. O. Bailie D. J. Archibald (Acting)
Engineer Surveyor to Lloyd's Register of Shipping.

TUE 8. 14 DEC 1943

Committee's Minute

Assigned *hmc 10.43*

