

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

10 JUL 1944

Report of Survey 3rd May, 1944 When handed in at Local Office 3rd May, 1944 Port of Vancouver, B. C.
 Survey held at Vancouver, B. C. Date, First Survey 2nd Feb., 1944 Last Survey 3rd May, 1944
 Book (Number of Visits 33)
 on the Steel Single Screw Steamer "CRYSTAL PARK" Tons {Gross 7161.44 Net 4221.34
 Built at North Vancouver, B.C. By whom built North Van Ship Repairs, Ltd. Yard No. 140 When built 1944
 Engines made at Toronto By whom made John Inglis Co. Ltd. Engine No. 290 When made 1944
 Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works, Ltd. Boiler Nos. 649 & 650 When made 1944
 Registered Horse Power 229 Owners Minister of Munitions & Supply of Canada. (Mgrs. Park Steamship Co. Ltd.) Port belonging to Montreal, P.Q.
 Nom. Horse Power as per Rule 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 14.21" Crank pin dia. 14 1/2" Mid. length breadth -- Thickness parallel to axis 9" & 9 1/2" L.P.
 as fitted 14 1/2" Crank webs Mid. length thickness -- Thickness around eye-hole (7 1/2" Pin 7 1/2" Journal)
 Intermediate Shafts, diameter as per Rule 13.53 Thrust shaft, diameter at collars as per Rule 14.21"
 as fitted 13.5 as fitted 14.25
 Tube Shafts, diameter as per Rule -- Screw Shaft, diameter as per Rule 15.07"
 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"
 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 Continuous
 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 12" x 8" x 24" Pumps connected to the (No. and size Four (Two) 10" x 11" x 12" Two 4 1/2" Rams
 Pumps (How driven Steam Worthington Simplex Main Bilge Line (How driven Duplex - Steam M.E.)
 Ballast Pumps, No. and size One- 10" x 11" x 12" (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 for'd.
 Cofferdam: One 2 1/2" P&S after Cofferdam In Holds, &c. One 3" P&S Nos. 1, 2, 3, 4 & 5 Holds, One 5" P&S 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 bilge As approved
 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 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 Welded
 What Pipes pass through the bunkers None How are they protected --
 What pipes pass through the deep tanks D.B. 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 lb. (Spt. 230 lb.)

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 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

Vice President

Manufacturer.

008597-008607-0285

© 2020

Lloyd's Register
 Foundation

Dates of Survey while building
During progress of work in shops - - March 29th, 1943 and subsequently per British Corporation Report dated 10th February, 1944 attached herewith.
During erection on board vessel - - 1944.
Feb. 2, 3, 9, 16, 25, 28. March 9, 15, 16, 23, 24, 27, 28, 29, 30, 31.
April 4, 6, 10, 11, 12, 13, 14, 17, 18, 19, 21, 22, 25, 26, 28. May 2, 3.
Total No. of visits 33

Dates of Examination of principal parts - Cylinders Slides Covers
Pistons Piston Rods Connecting rods
Crank shaft 11-4-44 Intermediate shafts 12-4-44
Tube shaft 16-2-44 Propeller 28-2-44
Stern tube 25-2-44 Engine and boiler seatings 9-3-44 Engines holding down bolts 4-4-44
Completion of fitting sea connections 9-3-44
Completion of pumping arrangements 26-4-44 Boilers fixed 13-3-44 Engines tried under steam 21-4-44
Main boiler safety valves adjusted 20-4-44 Thickness of adjusting washers Lock nuts fitted.
Crank shaft material O.H. Steel Lloyd's No. 6263 Thrust shaft material O.H. Steel Lloyd's No. 5319
Intermediate shafts, material O.H. Steel Identification Mark 22-6-43 WFM No. 8420 18-6-43 JHN 5491 18-6-43 EER
Screw shaft, material O.H. Steel Identification Mark 25-9-43 J.H.N. No. 8665 27-8-43 JHN No. 8666 27-8-43 JHN 7086 9-4-43 EER
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. Report 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 British Corporation Toronto Surveyors and installed on board under this Society's 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 installation on behalf of Wartime Shipbuilding, 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. 5.44 Screw Shaft C.L. 2 - W.T. Blrs. 250 lb. (Spt. 230 lb.) F.D. Fitted for oil fuel 5.44. Flash point above 150 F.

British Corporation Certificate dated 10th February, 1944 attached.

The amount of Entry Fee ... \$ 30.00
Special (Brit. Corp.) \$ 267.00
L.R. (Vcr.) \$ 133.00
Donkey Boiler Fee ... \$
L.R. (Vcr.) \$ 20.00
Travelling Expenses (if any) (Brit. Corp.) \$ 20.00

When applied for,
3rd May, 1944
When received,
19

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

Committee's Minute TUES. 18 JUL 1944

Assigned

LMC * 5.44 subject
2 WTB 250 lb
(21220 lb)



© 2020

Lloyd's Register
Foundation