

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

14 FEB 1944

Received at London Office 11 FEB 1944

Date of writing Report 1st Dec 1943 When handed in at Local Office 1st Dec 1943 Port of Vancouver, B.C.

No. in Survey held at Vancouver, B.C. Date, First Survey, 10th Sept. 1943 Last Survey 1st Dec. 1943

Reg. Book. (Number of Visits 31)

on the Steel Single Screw Steamer "DUNDURN PARK"

Built at North Vancouver, By whom built North Van Ship Repairs Ltd. Yard No. 133 When built 1943

Engines made at Lachine, Quebec By whom made Canadian Allis Chalmers Ltd. Engine No. 251 When made 1943

Boilers made at Vancouver, B.C. By whom made Vancouver Iron Works Ltd. Boiler No.s 562 & 563 When made 1943

Registered Horse Power 229 Owners Minister of Munition and Supply of Canada (Ingrs. Park Steamship Ltd - Montreal) Part belonging to ---

Nom. Horse Power as per Rule 643 628 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 for 230 lb. Crank pin dia. 14 1/2" Mid. length breadth --- Thickness parallel to axis 9" & 9 1/2" L.P. 7 1/2" Pin

as fitted 14 1/2" Crank webs --- Mid. length thickness --- Thickness around eye-hole 7 3/8" Journal

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

Tube Shafts, diameter as per Rule --- as per Rule 14.87 15.07 Is the tube screw shaft fitted with a continuous liner Yes

as fitted --- as fitted 15.25

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

as fitted .78125 as fitted .68

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 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 Main Bilge Line (No. and size) Four (Two) 10" x 11" x 12" Two Rams

(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

in Pump Room (One) 2 1/2" P&S After Coffer dams 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 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 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 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-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 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 as fitted plan attached Oil fuel Burning Piping Arrangements 9-7-43

SPARE GEAR.

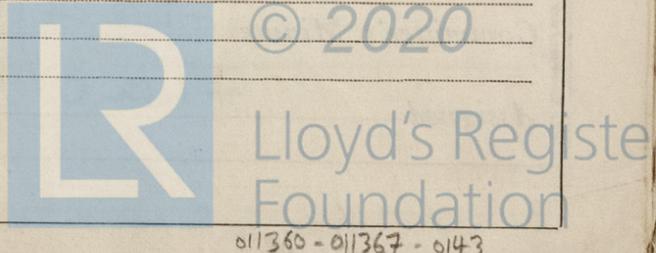
Are the spare gear required by the Rules been supplied Yes

Are 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

Per Donald M. Serene Manufacturer.



PILLARS
Centre Stiffer
Platin
STRINGI
Upper String
Thick
Thick in
Thick
If She
Second String
STR
FLAT PLAT
of Strake
BILGE PLA
Strakes
SIDE PLAT
Strakes
UPPER D
strake in
UPPER D
strake in
STRAKE B
strake in
STRAKE B
strake in
POOP SIDE
BRIDGE SID
FOREC'TLE
n twee
Total No
IDSHIP
OLLISIO
FTER PE
TEEL.

Dates of Survey while building
During progress of work in shops - - Montreal Report No. 5997.
During erection on board vessel - - 1943 Sept. 10, 15, 16, 18, 22, 23. Oct 27. Nov. 1, 2, 3, 4, 5, 6, 8, 9, 10, 14, 15, 16, 17, 18
Nov. 19, 20, 22, 24, 25, 26, 27, 29, 30. Dec. 1.
Total No. of visits 31

Dates of Examination of principal parts - Cylinders Slides Covers
Pistons Piston Rods Connecting rods
Crank shaft See Montreal Report No. 5997. Thrust shaft 15th Nov. 1943 Intermediate shafts 15th Nov. 1943
Tube shaft Screw shaft 10th Sept. 1943 Propeller 22nd Sept. 1943
Stern tube 18th Sept. 1943 Engine and boiler seatings 23rd Sept. 1943 Engines holding down bolts 9th Nov. 1943
Completion of fitting sea connections 23rd Sept. 1943
Completion of pumping arrangements 25th Nov. 1943 Boilers fixed 30th Sept. 1943 Engines tried under steam 16th Nov. 1943
Main boiler safety valves adjusted 16th Nov. 1943 "Compression" F 1-33/64
Crank shaft material O.H. Steel Lloyd's No. 9838 Identification Mark 14-9-43 H.G.S. Thrust shaft material O.H. Steel Identification Mark Lloyd's No. 8422 18-6-43 JHN 8419 18-6-43 JHN 8425 18-6-43 JHN 8423 18-6-43 JHN
Intermediate shafts, material O.H. Steel Identification Mark 29-6-43 BEE Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 10th Nov
Screw shaft, material O.H. Steel Identification Mark 29-6-43 BEE
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" (Vancouver 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 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 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. 11-43 Screw Shaft C.L. 2-W.T. Blrs (Spt) 250 lbs. per sq. inch F.D. Fitted for Oil fuel 11-43. Flash point above 150° F.

Montreal fees charged in Montreal Rept. No. 5997.
The amount of Entry Fee ... £ : : When applied for, 30th Nov, 43
Special (Ver) ... £ 133.00 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 20.00 : :
When received, 19

W.D. Baillie and D.J. Archibald
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute TUES. 22 FEB 1944
Assigned + LMC 12. 43