

Rpt. 4.

No. 5790

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REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

4 JUN 1943

Date of writing Report Jan. 26th 1943 When handed in at Local Office Jan. 4th 1943 Port of MONTREAL, QUE.
 No. in Survey held at MONTREAL, QUE. Date, First Survey Oct. 31st Last Survey Dec. 17th 1942
 Reg. Book. on the S. S. "DARTMOUTH PARK" 31. John. July 13 (Number of Visits 18 39 20)
 Built at Saint John, N.B. By whom built St. John Dry Dock & Shipbuilding Co. Ltd. Yard No. 15 When built 1942
 Engines made at LACHINE, P. Q. By whom made DOMINION BRIDGE CO. LIMITED Engine No. 2005 S5 When made 1942
 Boilers made at LACHINE, P. Q. By whom made DOMINION BRIDGE CO. LIMITED Boiler No. B.1042 P5 When made 1942
 Registered Horse Power Owners H.M. the King, in right of Canada, represented by the Minister of Munitions and Supply, Ottawa Port belonging to Montreal
 Nom. Horse Power as per Rule 268.81 Is Refrigerating Machinery fitted for cargo purposes. No Is Electric Light fitted Yes
 Trade for which Vessel is intended OCEAN GOING

ENGINES, &c.—Description of Engines Triple Expansion - 3 cylinders Revs. per minute 72
 Dia of Cylinders 20" 31" 55" Length of Stroke 39" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 10.99" Crank pin dia. 11.25" Mid. length breadth 16.25" Thickness parallel to axis 6.875"
 as fitted 11.25" Crank webs Mid. length thickness 6.875" shrunk Thickness around eye-hole 4.75"
 Intermediate Shafts, diameter as per Rule 10.47" Thrust shaft, diameter at collars as per Rule 10.99"
 as fitted 10.75" as fitted 11.25"
 Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule 11.78"
 as fitted - as fitted 12.25" Is the {screw} shaft fitted with a continuous liner { Yes
 as fitted - as fitted 12.25"
 Bronze Liners, thickness in-way of bushes as per Rule .657" Thickness between bushes as per Rule .493"
 as fitted .6875" as fitted .53125" 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.
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space there filled with a plastic material impervious to water?
 If no better can be found in the shop, is the propeller boss fitted with a bronze bush? On the other end of the propeller shaft, is the propeller boss fitted with a bronze bush?
 Propeller, dia. 15.75" Pitch 14.0" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 75 sq. ft.
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 26" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4.25" Stroke 26" Can one be overhauled while the other is at work Yes
 Feed (No. and size 1. 8" - 6" - 15" Pumps connected to the { No. and size 1. 10" - 12" - 10"
 Pumps (How driven Steam Main Bilge Line { How driven Steam
 Ballast Pumps, No. and size 1. 10" - 12" - 10" Lubricating Oil Pumps, including Spare Pump, No. and size -
 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 2 - 3" - 26" 1. 10" - 12" - 10"
 In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1. 6" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 2 - 4" 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 Are they fitted with Valves or Cocks. Valves and cocks
 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.
 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. No. 3 air pipe and No. 4 filling and air pipes How are they protected Sheet metal covers
 What pipes pass through the deep tanks Have they been tested as per Rule -
 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. No Is the Shaft Tunnel watertight. Yes Is it fitted with a watertight door. No worked from -

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 3854 square feet -
 Which Boilers are fitted with Forced Draft Port & Starboard Which Boilers are fitted with Superheaters Port and Starboard
 No. and Description of Boilers 2- Multitubular Scotch Boilers 253 Working Pressure 200 lbs./sq. in.

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 London Main Boilers. Approved New York Auxiliary Boilers. Donkey Boilers. -
 (If not state date of approval)

Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied. Yes

State the principal additional spare gear supplied Main Condenser: 25 tubes, 50 ferrules, 100 pieces of condenser tube packing, one tap for tube plate, 1 die for condenser ferrules, 1 guide pin for packing, 1 packing extractor, one ferrule driver, one tube driver. Main Engines: 3 sets of wearing segments of King tandem packing for H.P., I.P., and L.P. valve spindles. Boilers: 10 plain boiler tubes, 2 stay tubes, 2 of each - dead plates, baffle plates and bridge plates, 2 safety valve springs, 1 pressure gauge, 1 tube expander. Forced Draught: 3 baffle plates, 1 furnace door complete, 2 ash pit doors complete, 4 air valves complete, 14 retarders. Superheaters: 2 header drain valves, 96 flexible unit gaskets, 1 set of tools. Telemotor: 1 box containing assorted valve springs, packing rings, copper joints, 3 sets of S.E.A. ring packing, 1 set of tools. Steering Engine: 1 set of brasses for main bearing, bottom end and crosshead, 2 piston rings; 1 buffer complete with spring, 1 set of piston rod and valve spindle packing.

The foregoing is a correct description

DOMINION BRIDGE CO. LIMITED

R. H. Findlay, Mechanical Engineer, Manufacturer.



Lloyd's Register Foundation

010835-010845-0165

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

NOTE.—The words which do not apply should be deleted.

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Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

Oct. 31, Nov. 3, 5, 9, 11, 16, 17, 18, 19, 21, 26, 30, Dec. 1, 6, 9, 14, 16, 17

1942: Sept. 25, ^{July 13} Dec. 7, 8, 9, 10, 15, 16, 17, 18, 21, 24, 30; 1943: Jan. 7, 9, 29;
Feb. 23, 25; Mar. 1, 6, 12, 24, 30; Apr. 1, 3, 4, 6, 7, 8, 9, 12, 14, 15, 16, 17, 22, 26, 29, 30.

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Dates of Examination of principal parts - Cylinders H.P. 11.11.42 M.P. 17.11.42 L.P. 11.11.42 Slides 5.12.42 Covers 17.11.42
Pistons 1.12.42 Piston Rods 1.12.42 Connecting rods 1.12.42
Crank shaft 18.11.42 Thrust shaft 12.11.42 Intermediate shafts 28/12/42
Tube shaft - Screw shaft 4/12/42 Propeller 10/11/42
Stern tube 13/7/42 Engine and boiler seatings 11/1/43 Engines holding down bolts 12/3/43
Completion of fitting sea connections 17/12/43
Completion of pumping arrangements 5/4/43 Boilers fixed 1/4/43 Engines tried under steam 15/4/43
Main boiler safety valves adjusted 8/4/43 Thickness of adjusting washers S.V. 448; P.V. 487: S.V. 407; P.V. 355
Crank shaft material O H Steel Identification Mark LR No. 5034 HGLP Thrust shaft material O H Steel Identification Mark LR No. 5307
Intermediate shafts, material O H Steel Identification Marks LR No. 130:137:9579:8900:8519 Tube shaft, material O H Steel Identification Mark
Screw shaft, material O H Steel Identification Mark LR No. 8516 Steam Pipes, material Steel Test pressure 500 lbs per sq. in. Date of Test 24/3/43
Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. - -
Have the requirements of the Rules for the use of oil as fuel been complied with - -
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with - -
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with - -

Is this machinery duplicate of a previous case Yes If so, state name of vessel "ROCKWOOD PARK"

General Remarks (State quality of workmanship, opinions as to class, &c.) This ENGINE together with Thrust Shaft, Thrust Block and Condenser have been constructed under Special Survey, in accordance with the Rules and Approved Plans, and the workmanship is, in my opinion, good.

The Forgings and Castings have been tested and finally examined by the undersigned and found satisfactory.

This ENGINE has been shipped to St. John Shipbuilding & Dry Dock Co. Limited, SAINT JOHN, N.B., for installation and official trials.

It is recommended for the favourable consideration of the Committee that the record of * L.M.C. (with date) be made in the Register Book in the case of the Vessel, subject to satisfactory installation and sea trials.

This ENGINE has been installed in this vessel along with the intermediate shafting, tail end shaft, stern tube and auxiliary machinery, in accordance with the rules and approved plans, and the materials and workmanship are of good quality.

Main engine cylinder and valve chest covers were removed for internal examination of cylinders and valve chests after official dock and sea trials; both examinations were satisfactory, the cylinder walls and valve faces being found in good condition.

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

Montreal:
The amount of Entry Fee ... \$ 20.00
Special ... \$ 200.00
Donkey Boiler Fee ... £ 2.00
Travelling Expenses (if any) ... \$ 22.00
Saint John;
Installation of Machinery: \$ 250.00
Expenses ... 22.00
Committee's Minute

When applied for, Feb. 27, 1943
When received, 19

A. G. R. Pritchard
Engineer Surveyor to Lloyd's Register of Shipping.

Total fee applied for
May 12, 1943
(Saint John, N. B.)

Assigned
+ LMC 4.43 20.00