

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 2 DEC 1942

Date of writing Report July 27th 1942 When handed in at Local Office July 27th 1942 Part of MONTREAL, QUE.

No. in Survey held at MONTREAL, QUE. Date, First Survey May 16th, 1942 Last Survey June 27th, 1942
Reg. Book. on the Steel Single Screw Steamer "Fort Reliance" (Number of Visits 32)

Built at VANCOUVER, B.C. By whom built BURRARD DRY DOCK COMPANY LIMITED Yard No. 145 Tons Gross 7132.51 Net 4243.49
Engines made at MONTREAL, QUE. By whom made Dominion Engineering Works Ltd. Engine No. 37 When made 1942

Boilers made at By whom made Boiler No. When made
Registered Horse Power Owners Port belonging to

Nom. Horse Power as per Rule 504 505 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines Triple Expansion 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 14.07 14.00 as fitted 14 1/2" Crank pin dia. 14 1/2" Crank webs Mid. length breadth -- shrunk Thickness parallel to axis 9" & 9 1/2" I.P. 7.125 7.625
as fitted 14 1/2" Mid. length thickness -- Thickness around eye-hole

Intermediate Shafts, diameter as per Rule 13.2 13.32 as fitted 13.5 Thrust shaft, diameter at collars as per Rule 13.82 14.00 as fitted 14.25

Tube Shafts, diameter as per Rule -- as fitted -- Screw Shaft, diameter as per Rule 14.875 14.86 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" 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) Pumps connected to the Main Bilge Line (No. and size) How driven
Ballast Pumps, No. and size 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
In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

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
Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates 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 Are the Blow Off Cocks fitted with a spigot and brass covering plate

What Pipes pass through the bunkers How are they protected
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
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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7140 square feet
Which Boilers are fitted with Forced Draft All three - Which Boilers are fitted with Superheaters All three

No. and Description of Boilers 3 Single Ended Multitubular Working Pressure 220 lbs. per square inch
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 Main Boilers 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
State the principal additional spare gear supplied

The foregoing is a correct description

Dominion Engineering Works Ltd Manufacturer.
per A Van Batten



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16, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30th May, 1942, 1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 15, 17,
 During progress of work in shops - - - 18, 19, 22, 23, 24, 25, 26, 27th June, 1942.
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits

Dates of Examination of principal parts — Cylinders 20-5-42, 2-6-42, 17-6-42 Slides 20-5-42, 2-6-42, 17-6-42 Covers 20-5-42, 2-6-42, 17-6-42
 Pistons 2-6-42, 17-6-42 Piston Rods 27-6-42 Connecting rods 27-6-42
 Crank shaft 27-6-42 Thrust shaft Intermediate shafts
 Tube shaft Screw shaft Propeller
 Stern tube Engine and boiler seatings Engines holding down bolts
 Completion of fitting sea connections
 Completion of pumping arrangements Boilers fixed Engines tried under steam
 Main boiler safety valves adjusted Thickness of adjusting washers
 Crank shaft material O.H Steel Identification Mark 3872 A.R. Thrust shaft material O H Steel Identification Mark 5402 T.M.
 Intermediate shafts, material Identification Marks 27-6-42 Tube shaft, material Identification Mark 5.5.42
 Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test

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. 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 S/S "FORT TADOUSSAC" & S/S "FORT CHAMBLAY"

General Remarks (State quality of workmanship, opinions as to class, &c. This ENGINE has been constructed under Special Survey in accordance with the Rules and Approved Plans. The Materials and workmanship are good. The cylinders were tested hydrostatically to 330, 110 and 30 lbs. pressure per square inch respectively, and found tight under those pressures. This ENGINE has now been shipped to MESSRS. BARRARD DRY DOCK COMPANY LIMITED, VANCOUVER, B.C., 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 this Vessel, subject to satisfactory installation and sea trials.

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 ... /# \$267.00 :
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ :
 When applied for, 29/9/1942 RR
 When received, ✓ 19 VCR.

A. H. Liddell
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 4 DEC 1942

Committee's Minute
 Assigned See Ver 76 5878

