

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

17 JUN 1942

Received at London Office.

Date of writing Report MAY 24 1942 When handed in at Local Office MAY 24 1942 Port of VANCOUVER B.C.
 No. in Survey held at NORTH VANCOUVER B.C. Date, First Survey DEC. 3rd /41 Last Survey MAY 2nd 1942
 Reg. Book. on the STEEL SINGLE SCREW STEAMER "FORT FRASER" (Number of Visits 26)
 Built at NORTH VANCOUVER By whom built BURRARD DRY DOCK CO. LTD. Yard No. 136 When built 1942
 Engines made at MONTREAL P.Q. By whom made DOMINION ENGINEERING WORKS LTD. Engine No. 9 When made 1941
 Boilers made at VANCOUVER B.C. By whom made DOMINION BRIDGE CO. LTD. Boiler No. 128 When made 1941
 Registered Horse Power 229 Owners H.M. GOVERNMENT IN UNITED KINGDOM Port belonging to
 Nom. Horse Power as per Rule 504 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 80
 Dia of Cylinders 24½ 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 Crank pin dia. 14½ Mid. length breadth - Thickness parallel to axis 9.29½ L.P.
 as fitted 14½ Crank webs Mid. length thickness - Thickness around eye-hole 6.625
 Intermediate Shafts, diameter as per Rule 13.2 13.32 Thrust shaft, diameter at collars as per Rule 13.82 14.00
 as fitted 13.5 as fitted 14.25
 Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule 14.075 14.86
 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 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 No 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 4½ Stroke 26" Can one be overhauled while the other is at work YES
 Feed (No. and size TWO 8" x 10½" x 22" Pumps connected to the Main Bilge Line { No. and size FOUR ONE 10" x 12 x 10" ONE 9" x 6" x 10" TWO RAMS
 Pumps (How driven STEAM WEIR SIMPLEX How driven DUPLEX STEAM DUPLEX STEAM M.B.
 Ballast Pumps, No. and size ONE 10" x 12 x 10" 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 1-3" DIA. PORT - 1-3" DIA. STAR. IN ENGR. RM. 1-2" DIA. IN THRUST RECESS.
 In Pump Room - In Holds, &c. 1-4" DIA. TO F.P. 1-3" DIA. P.S. TO N°1. HOLD - 1-3" DIA. P.S. TO N°2. HOLD - 1-5" DIA. P.S. TO N°3. HOLD - 1-3" DIA. P.S. TO N°4. HOLD - 1-3" DIA. P.S. TO N°5. HOLD - 1-4" DIA. TO A.P. TANK - 1-2½" DIA. TO TUNNEL WELL
 Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE - 9" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE 5" DIA. STAR. SIDE
 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
 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 YES
 What Pipes pass through the bunkers STEEL AIR PIPES TO NO. 4. D.B. TANK How are they protected STEEL STRAPS WELDED ACROSS FRAMES UNDER LINER BOARDS
 What pipes pass through the deep tanks NO. 7. D.B. TANKS 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 S) Total Heating Surface of Boilers 7140 SQ. FT.
 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 Q"
 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 - Auxiliary Boilers - Donkey Boilers -
 (If not state date of approval)
 Superheaters APPROVED PLANS IN U.K. 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

As per list forwarded with V.C. Rpt. 5718 SS Int "ST James".

The foregoing is a correct description
 Burrard Dry Dock Company, Limited

Manufacturer.



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008524-008532-0058

SEE MONTREAL P.Q. REPT. No 5586

Dates
of Survey
while
buildingDuring progress of
work in shops - -During erection on
board vessel - -

Total No. of visits

DEC.

FEB.

MAR.

APRIL

MAY.

3

10-20-25-26-27

12-25-30

1-5-6-9-12-13-14-15-16-17-19-20-22-23-24

2

20

Dates of Examination of principal parts — Cylinders _____ Slides _____ Covers _____
 Pistons _____ Piston Rods _____ Connecting rods _____
 Crank shaft _____ Thrust shaft **FEB. 18-42** Intermediate shafts **FEB. 18-42**
 Tube shaft _____ Screw shaft **FEB. 10-42** Propeller **FEB. 25-42**
 Stern tube **FEB. 20-42** Engine and boiler seatings **FEB. 25-42** Engines holding down bolts **APRIL 5-42**
 Completion of fitting sea connections **FEB. 26-42**
 Completion of pumping arrangements **APRIL 15-42** Boilers fixed **FEB. 26-42** Engines tried under steam **APRIL 18-42**
 Main boiler safety valves adjusted **APRIL 14-42** Thickness of adjusting washers **APRIL 18-42**
 Crank shaft material **O.H. STEEL** Identification Mark **LLOYD'S 2748 H.S. 19-1-42** Crust shaft material **O.H. STEEL** Identification Mark **LLOYD'S 2193 W.S. 10-23-41**
 Intermediate shafts, material **O.H. STEEL** Identification Mark **LLOYD'S 2194 W.S. 10-23-41** Identification Mark **LLOYD'S 2197 W.S. 10-23-41**
 Screw shaft, material **O.H. STEEL** Identification Mark **LLOYD'S 4031 6-10-41 5M** Steam Pipes, material **S.D. STEEL** Test pressure **660 LBS.** Date of Test **APRIL 6-42**
 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 **S/S FORT. GEORGE VANLIER. REPT. No 5740.**
 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 P.Q. Surveyors, and installed on board under special survey in accordance with the 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 opened out, examined and found satisfactory. The machinery has also been surveyed during construction and installation on behalf of Maritime Merchant Shipping Ltd. to insure 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. 4-42** Screw Shaft. G.L. 3. S.E. BLRS. 220 LBS. F.D.

Montreal fees charged in Montreal P.Q. Rept. No 5586.

The amount of Entry Fee **VER \$ 133.00.** : When applied for, **28.4 19 42 RB**
 Special ... £ :
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) **\$ 20.00.** : When received, **✓ 19**

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 23 JUN 1942

+ Lmb. 5.42
20, CH.

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