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No.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office B- JAN 1946

Date of writing Report **June 13th, 1945** When handed in at Local Office **June 13th, 1945** Port of **Montreal, Que.**
No. in Reg. Book **Survey held at Montreal, Que.** Date, First Survey **Jan. 17th, 1945** Last Survey **Feb. 22nd, 1945**
on the **STEEL TWIN SCREW STEAM TRANSPORT FERRY - "H.M.L.S.T. 3534"** (Number of Vessels) **Constant attendance** Tons **Gross 4270.74 Net 2430.45**
Built at **Victoria, B.C.** By whom built **Yarrows Limited** Yard No. **54** When built **1945**
Engines made at **Lachine, Que.** By whom made **Dominion Bridge Co. Ltd.** Engine No. **2149** When made **1945**
Boilers made at **VANCOUVER, B.C.** By whom made **VANCOUVER IRON WORKS LTD.** Boiler No. **P. 790 S. 833** When made **1944 1945**
Registered Horse Power **-** Owners **My Lord's Commissioners of the Admiralty** Port belonging to **-**
Nom. Horse Power as per Rule **749** Is Refrigerating Machinery fitted for cargo purposes **NO** Is Electric Light fitted **YES**
Trade for which Vessel is intended **Transport Ferry for Royal Navy**

ENGINES, &c.—Description of Engines **1 Engine 4 Cylinder Triple Exp. Reciprocating** Revs. per minute **185**
Dia. of Cylinders **38 1/2" x 18 1/2" x 31" x 38 1/2"** Length of Stroke **30"** No. of Cylinders **4** No. of Cranks **4**
Crank shaft, dia. of journals **as per Rule 10.03"** Crank pin dia. **10.5"** Crank webs **Mid. length breadth 16.75" Thickness parallel to axis 6.5"**
Intermediate Shafts, diameter **as per Rule 10.5"** Thrust shaft, diameter at collars **as per Rule 10.03"**
Tube Shafts, diameter **as per Rule** Screw Shaft, diameter **as per Rule** Is the **tube** shaft fitted with a continuous liner **YES**
Bronze Liners, thickness in way of bushes **as per Rule** Thickness between bushes **as per Rule** Is the after end of the liner made watertight in the **propeller boss**
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **YES**
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 **YES**
If two liners are fitted, is the shaft lapped or protected between the liners **YES** Is an approved Oil Gland or other appliance fitted at the after end of the tube **YES**
Propeller, dia. **Pitch** No. of Blades **Material** whether Moveable **Total Developed Surface** sq. ft.
Feed Pumps worked from the Main Engines, No. **Diameter** Stroke **Can one be overhauled while the other is at work**
Bilge Pumps worked from the Main Engines, No. **Diameter** Stroke **Can one be overhauled while the other is at work**
Feed (No. and size **Pumps connected to the** { No. and size **Main Bilge Line** { How driven
Pumps (How driven **Lubricating Oil Pumps, including Spare Pump, No. and size**
Ballast Pumps, No. and size **Are two independent means arranged for circulating water through the Oil Cooler** **Suctions, connected to both Main Bilge Pumps and Auxiliary**
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 **YES**
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 **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 **Is the Shaft Tunnel watertight** **Is it fitted with a watertight door** **worked from**

MAIN BOILERS, &c.— (Letter for record **-**) Total Heating Surface of Boilers **-**
Which Boilers are fitted with Forced Draft **-** Which Boilers are fitted with Superheaters **-**
No. and Description of Boilers **2 W.T. YARROW TYPE** Working Pressure **225 lbs per square inch**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **-**

IS A DONKEY BOILER FITTED? **-** 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 Bridge Company Limited

Per: **R. H. Findlay**
Mechanical Engineer
Eastern Division

Manufacturer.



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Lloyd's Register
Foundation

Constant attendance from Jan. 17th, 1945 to Feb. 22nd, 1945.

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts—Cylinders 23, 25, 26-1-45 Slides 8.2.45 Covers 23, 25, 26-1-45

Pistons 23, 25, 26-1-45 Piston Rods 31.1.45 Connecting rods 31.1.45

Crank shaft 8.2.45 Thrust shaft 6.3.45 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 LLOYD'S 6912 HGLP.8.2.45 Thrust shaft material O.H. Steel Identification Mark LLOYD'S 6188 H.G.L.P. 6.3.45

Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) The ENGINE together with THRUST SHAFT and THRUST BLOCK has been constructed under Special Survey and in accordance with the Approved Plans and Letters, and the materials and workmanship are, in my opinion, good.

The Main Engine is fitted with an all welded steel bedplate constructed in accordance with approved plans, and examined during construction.

All forgings and castings have been tested and finally examined by the undersigned and found satisfactory.

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.

The amount of Entry Fee ... \$ 30.00

Special ... \$ 407.00

Donkey Boiler Fee ... \$

Travelling Expenses (if any) \$ 21.50

When applied for, 11th July 1945

When received, 10.11.45 VCR

19 RB

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 25 JAN 1946

Committee's Minute

Assigned Su F.F. machy. rpt.