

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

19 JAN 1942

Date of writing Report **Nov. 13th, 1942.** When handed in at Local Office **19** Port of **TORONTO, CANADA.**  
 No. in Survey held at **Toronto, Canada** Date, First Survey **Sept. 29th** Last Survey **Nov. 9th, 1942.**  
 Reg. Book. on the **10,000-ton cargo vessel "FORT JEMSEG"** (Number of Visits.....) Tons {Gross 7134.01  
 Net 4244.00  
 Built at **North Vancouver B.C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **153** When built **1942**  
 Engines made at **Toronto, Ontario** By whom made **John Inglis Co. Ltd.** Engine No. **135M54** When made **1942**  
 Boilers made at ..... By whom made ..... Boiler No. .... When made .....  
 Registered Horse Power ..... Owners **Wartime Merchant Shipping Ltd.** Port belonging to .....  
 Nom. Horse Power as per Rule **504** <sup>505</sup> Is Refrigerating Machinery fitted for cargo purposes ..... Is Electric Light fitted **Yes.**  
 Trade for which Vessel is intended .....

**ENGINES, &c.**—Description of Engines **Triple Expansion Superheated 575° F.** Revs. per minute **76**  
 Dia of Cylinders **24.5"x37" x 70"** Length of Stroke **48"** No. of Cylinders **3** No. of Cranks **3**  
 Crank shaft, dia. of journals as per Rule **13.98** Crank pin dia. **14.25** Crank webs Mid. length breadth **24.5** Thickness parallel to axis **9 H.P.M.P.**  
 as fitted **14.25** Mid. length thickness ..... Thickness around eye-hole **7-1/8" Pin**  
 Intermediate Shafts, diameter as per Rule ..... Thrust shaft, diameter at collars as per Rule **13.98** **7-5/8" Journal**  
 as fitted ..... as fitted **14.25**  
 Tube Shafts, diameter as per Rule ..... Screw Shaft, diameter as per Rule ..... Is the {tube} shaft fitted with a continuous liner {  
 as fitted ..... as fitted .....  
 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  
 as fitted ..... as fitted ..... propeller boss ..... 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 charged with a plastic material insoluble in water and non-corrosive .....  
 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 ..... If so, state type ..... Length of Bearing in Stern Bush next to and supporting propeller .....  
 Propeller, dia. .... Pitch ..... No. of Blades ..... Material ..... whether Moveable ..... Total Developed Surface ..... 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. **2** Diameter **4.5** Stroke **26"** Can one be overhauled while the other is at work **Yes.**  
 Feed {No. and size **Two - 10"x7"x24"** **4000 Imp. Gallons.** Pumps connected to the { No. and size  
 Pumps {How driven **Independent** Main Bilge Line { 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.....) Total Heating Surface of Boilers **7140 sq. ft. (3 Boilers)**  
 Which Boilers are fitted with Forced Draft **All three Boilers** Which Boilers are fitted with Superheaters **All three Boilers**  
 No. and Description of Boilers **Three. Scotch Marine** Working Pressure **220 lbs. per sq. in.**

**IS A REPORT ON MAIN BOILERS NOW FORWARDED?** **No.**  
**IS A DONKEY BOILER FITTED?** **No.** If so, is a report now forwarded? .....

Can the donkey boiler be used for domestic purposes only **N.E.M. No. 694** **6 Oct. 1941 NY**  
**PLANS.** Are approved plans forwarded herewith for Staffing **Lloyd's** **John S. Heck**  
 (If not state date of approval) **Approval 15/11/40** per **C.M.** Auxiliary Boilers ..... Donkey Boilers .....

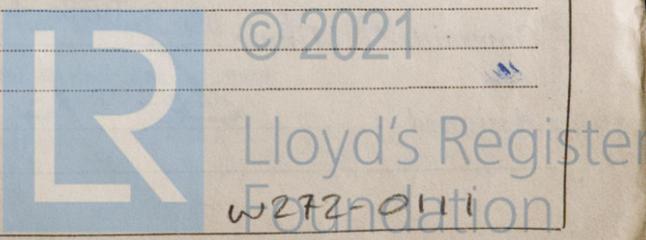
Superheaters ..... General Pumping Arrangements ..... Oil fuel Burning Piping Arrangements .....

## SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes.**  
 State the principal additional spare gear supplied **1 set Piston rings and Springs for H.P. M.P. and L.P. Pistons and H.P. Piston Valve, top and bottom, 1 set of pads for ahead face of Thrust Bearing, 2 Bottom end Bolts and Nuts, 4 top end Bolts and Nuts, 2 Main Bearing Bolts and Nuts, 6 Coupling Bolts and Nuts, 1 Bottom end Bearing (2 halves), 2 pairs top end Bearings, 1 set Bottom end Bearing Liners, 1 set Metallic Packing for H.P. M.P. and L.P. Piston Rods and Valve Spindles, 1 set (6) Air Pump Head Valve Discs (top and bottom), 4 Pressure glasses, 4 Springs, 4 Guide Rings, 8 Gaskets, 1 Pump Unit complete for Lubricator, 1 Glycerine Gun, 1 Valve and Seat for S.D.N.R. Valve and Lift Valve on Suc. and Disch. Chests, 3 Carrying bars for Crossheads, 1 lifting bar for Main Bearings, 1 Wear down Gauge for Crankshaft, 1 set Spanners and Wrenches as per specification.**

The foregoing is a correct description  
 The John Inglis Company Limited  
 Date Nov. 20/42 (Sgd) Jas McKenzie

Manufacturer.



Dates of Survey while building

During progress of work in shops - - } Sept. 29, Oct. 2, 3, 5, 7, 10, 12, 13, 14, 15, 17, 20, 22, 23, 24, 26, 27, Oct. 28, 30, 31, Nov. 2, 4, 5, 6, 7, 9.

During erection on board vessel - - - }

Total No. of visits 25

Dates of Examination of principal parts — Cylinders H.P. 29.9.42 M.P. 2.10.42 L.P. 22.9.42 Slides H.P. M.P. L.P. 26.10.42 Covers H.P. 29.9.42 M.P. 2.10.42 L.P. 22.9.42

Pistons H.P. M.P. L.P. 13.10.42 Piston Rods 13.10.42 Connecting rods 13.10.42

Crank shaft 9.10.42 Thrust shaft 23.10.42 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 LLOYDS 3709D I.J.T. 26.5.42 Thrust shaft material O.H. Steel Identification Mark LLOYDS 5577 P.W.W. 17.7.42

Intermediate shafts, material Identification Marks LLOYDS 3864A I.J.T. 30.5.42 Tube shaft, material Identification Mark J.B.F. 23.10.42

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 Yes. If so, state name of vessel N.E.M. Type.

General Remarks (State quality of workmanship, opinions as to class, &c.) The Main Engine was built under the Special Survey of the Society's Surveyors to the requirements of the Rules, and in accordance with the approved plans.

The workmanship was good and the materials were made at an approved works and tested as required by the Rules to the satisfaction of the Society's Surveyors.

In my opinion this Main Engine is eligible to be classed in the Society when satisfactorily installed and tried under steam to the satisfaction of the Society's Surveyors.

Forgings reports Nos. 5577, 6659, 3441A, 8301, 8692, 3709D, 3865A, 8049, 8095, 8185, attached hereto.

Thrust Shaft LLOYDS 5577 P.W.W. 17.7.42, J.B.F. 23.10.42 was examined in finished condition and found satisfactory.

First

The amount of Entry Fee ... £ \$: 30.00

Special Survey ... £ 267.00

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ : 10.00

When applied for, 22.1.1943 VCR.

When received, RB.

Gas B. Sanders  
Engineer Surveyor to Lloyd's Register of Shipping.

TUES. 1 FEB 1944

Committee's Minute

Assigned See 1st page of 5867



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