

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

18 SEP 1942

Date of writing Report **May 21st 1942** When handed in at Local Office **19** Port of **TORONTO, CANADA.**

No. in Survey held at **Toronto, Canada** Date, First Survey **Jan. 6/42** Last Survey **Feb. 26, 1942**

Reg. Book. on the **10,000-ton Cargo Vessel "FORT CHIPEWYAN"** (Number of Visits **30**)

Built at **Vancouver, B.C.** By whom built **West Coast Shipbuilders Ltd.** Yard No. **103** When built **1942**

Engines made at **Toronto** By whom made **John Inglis Co. Ltd.** Engine No. **76** 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 **457** Is Refrigerating Machinery fitted for cargo purposes **-** Is Electric Light fitted **-**

Trade for which Vessel is intended **-**

ENGINES, &c.—Description of Engines **Triple Expansion. Superheat to 575° F.** Revs. per minute **76.**

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 **13.98"** as fitted **14.25"** Crank pin dia. **14.250"** Crank webs Mid. length breadth **24½"** Thickness parallel to axis **9"HP.MP.9½"LP.**

Intermediate Shafts, diameter as per Rule **-** as fitted **-** Thrust shaft, diameter at collars as per Rule **13.98"** as fitted **14.25"** Thickness around eye-hole **7 1/8" Pin 7 5/8" Journal**

Tube Shafts, diameter as per Rule **-** as fitted **-** Screw Shaft, diameter as per Rule **-** as fitted **-** Is the {tube/screw} shaft fitted with a continuous liner { **-** }

Bronze Liners, thickness in way of bushes as per Rule **-** as fitted **-** Thickness between bushes as per Rule **-** as fitted **-** 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 **-**

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 **4.470"** Stroke **26"** Can one be overhauled while the other is at work **Yes**

Feed {No. and size **Two-10"x7"x24".4000 Imp. Galls.** 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 **S**) Total Heating Surface of Boilers **7140 Sq. Ft. (3 boilers)**

Which Boilers are fitted with Forced Draft **Yes** Which Boilers are fitted with Superheaters **All three boilers.**

No. and Description of Boilers **Three-Scotch Marine** Working Pressure **220 lbs. 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. 6.Oct.1941.N.Yk.**

PLANS. Are approved plans forwarded herewith for Shafting **No.694** Main Boilers **John S.** Auxiliary Boilers **-** Donkey Boilers **-**

(If not state date of approval) **Lloyd's approval 15/11/40.** Heck, per C.M. Oil fuel Burning Piping Arrangements **-**

Superheaters **-** General Pumping 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 & Springs for H.P.-M.P.-L.P. Pistons and H.P. Piston Valve, top & bottom. 1 set. Pads for Ahead Face of Thrust Bearing. 2. Bottom End Bolts & Nuts. 4. Top End Bolts & Nuts. 2. Main Bearing Bolts & Nuts. 6. Coupling Bolts & Nuts. 1 Bottom End Bearing (2 Halves). 2 Pairs. Top End Bearings. 1. Set Bottom End Bearing Liners. 1 Set. Metallic Packings for H.P.-M.P.-L.P. Piston Rods & Valve Spindles. 1 Set. (6) Air Pump Head Valve Discs. (Top & Bottom). 4 Pressure Glasses- 4 Springs - 4 Guide Rings - 8 Gaskets - 1 Pump Unit Complete for Lubricator. 1 Glycerine Gun. 1 (Valve & Seat for S.O.N.R. Valve) & Lift Valve on Suct. & Disch. Chests. 3 Carrying Bars for Crossheads. 1 Lifting I.B. for Main Bearings. 1 Wearing Gauge for Crankshaft. (1 Set of Spanners & Wrenches as per specification).**

The foregoing is a correct description

The John Inglis Company Limited
Date **June 1st 1942** By **J. McKeown**

Manufacturer.



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Lloyd's Register Foundation

003503-003512-0186

Jan. 6, 9, 10, 11, 12, 14, 17, 20, 23, 26, 27, 28, 31.

Dates of Survey while building: During progress of work in shops 1942. Feb. 1, 2, 3, 5, 7, 8, 9, 11, 15, 16, 18, 19, 21, 22, 23, 25, 26.

Total No. of visits 30 during progress of work in shops.

Table with columns for H.P., M.P., L.P. and rows for Cylinders, Slides, Covers, Pistons, Piston Rods, Connecting rods, Crank shaft, 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, Main boiler safety valves adjusted, Thickness of adjusting washers (4220.J.S.31.10.41-4204.J.S.14.10.41)

Crank shaft material O. H. Steel Identification Mark J.B.23.2.42, Thrust shaft material O.H.Steel Identification Mark J.B.23.2.42, Intermediate shafts, material, Tube shaft, material, Screw shaft, material, 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 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.

Forging reports Nos. 1761-D, 7903, 7845, 7762, 9926, 7877, 9991, 4204, and 4208 attached hereto.

Thrust Shaft Lloyds No. 7895 was examined in finished condition and found in good order.

Empty lines for additional remarks or notes.

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First Entry Fee £ 30.00, Special Survey £ 267.00, Donkey Boiler Fee £, Travelling Expenses (if any) £ 10.00

When applied for, 9/17/42, When received, ✓ 19

Signature of F. Barker, Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 22 SEP 1942

Committee's Minute Assigned See file made up.



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