

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report **Dec. 28th, 1946** When handed in at Local Office **19** Port of **TORONTO, CANADA** Received at London Office **27 JAN 1947**

No. in Survey held at **Port Arthur, Ont.** Date, First Survey **October 8th/46** Last Survey **October 28th, 1946**

Reg. Book. **80041** on the **S.S. "TAI HANG 4" ex "OTTAWA MAYCOVE"** (Number of Visits **4**)

Built at **Port Arthur, Ont.** By whom built **Port Arthur S.B. Co. Ltd.** Yard No. **98** When built **1946**

Engines made at **Montreal, Que.** By whom made **Canadian Vickers Ltd.** Engine No. **35100-5** When made **1945**

Boilers made at **Port Arthur, Ont.** By whom made **Port Arthur S.B. Co. Ltd.** Boiler No. **1945** When made **1945**

Registered Horse Power **73** Owners **Chinese Government Supply Agency** Port belonging to **Shanghai**

Nom. Horse Power as per Rule **73** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

Trade for which Vessel is intended **Shanghai**

ENGINES, &c.—Description of Engines **Triple Expansion** Revs. per minute **230**

Dia of Cylinders **9" x 16" x 26"** Length of Stroke **18"** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **5.02"** Crank pin dia. **5 1/2"** Mid. length breadth **-** Thickness parallel to axis **4"**

as fitted **5 1/2"** Crank webs **sbrunk** Mid. length thickness **-** Thickness around eye-hole **2-7/16"**

Intermediate Shafts, diameter as per Rule **4.784"** Thrust shaft, diameter at collars as per Rule **5.02"**

as fitted **-** as fitted **5 1/2"**

Tube Shafts, diameter as per Rule **-** Screw Shaft, diameter as per Rule **5.384"**

as fitted **-** as fitted **6"** Is the {tube} shaft fitted with a continuous liner **No Liner 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 propeller boss **Yes**

as fitted **-** as fitted **-** 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 **Yes** If so, state type **Newark Oil gland**

Propeller, dia. **6'-0"** Pitch **5'-1/2"** No. of Blades **four** Material **Bronze** whether Moveable **fixed** Length of Bearing in Stern Bush next to and supporting propeller **25"**

Feed Pumps worked from the Main Engines, No. **One** Diameter **2 1/2"** Stroke **8 1/2"** Can one be overhauled while the other is at work **-**

Bilge Pumps worked from the Main Engines, No. **One** Diameter **2 1/2"** Stroke **8 1/2"** Can one be overhauled while the other is at work **-**

Feed Pumps (No. and size **One x 2 1/2", One x 6" x 4" x 6"** Pumps connected to the Main Bilge Line { No. and size **One x 2 1/2", two x 7 1/2" x 5" x 10"**

How driven **Links from Main Eng. & Steam** How driven **Links from M.E., Steam.**

Ballast Pumps, No. and size **One x 7 1/2" x 5" x 10"** 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 **Four x 2 1/2"**

In Pump Room **-** In Holds, &c. **Two x 2" each hold, One x 2" cofferdam.**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One x 4"** 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 **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 **2 valves & 2 cocks**

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 **-** 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 **Yes** 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 **1331 Sq. Ft.**

Which Boilers are fitted with Forced Draft **Main Boiler** Which Boilers are fitted with Superheaters **-**

No. and Description of Boilers **One Single ended multitubular** Working Pressure **200 lbs. per sq. in.**

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 **2/4/45** Main Boilers **-** Auxiliary Boilers **-** Donkey Boilers **-**

(If not state date of approval) **28/5/45**

Superheaters **-** General Pumping Arrangements **New York 9/5/45** Oil fuel Burning Piping Arrangements **New York 8/8/45**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes**

State the principal additional spare gear supplied **-**

The foregoing is a correct description

Manufacturer.



012827-012835-0139

August 13th, 1945 to November 19th, 1945 by L.R. Surveyors, Montreal.

Dates of Survey while building
During progress of work in shops --
During erection on board vessel ---
Total No. of visits

Continuous by British Corporation Surveyors.

Dates of Examination of principal parts — 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 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 4205 TSM. 3/10/45 Thrust shaft material O.H. Steel Identification Mark Lloyd's 993 LAD. 15/10/4

Intermediate shafts, material None Identification Marks - Tube shaft, material Steel Identification Mark -
Screw shaft, material O.H. Steel Identification Mark Lloyd's 9956 J.H.N.2.7.45 Steam Pipes, material S.D.H.R. Test pressure 600 lbs. Date of Test Brit. Co

Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes

Have the requirements of the Rules for the use of oil as fuel been complied with Yes

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. "OTTAWA MAYHILL" (Montreal R 678)

General Remarks (State quality of workmanship, opinions as to class, &c. This Engine was constructed under the Special Survey of the Society's Surveyors. See Montreal Surveyors' Report.

The Engine together with thrust shaft, thrust block and condenser, were forwarded to Port Arthur Shipbuilding Co. Ltd., Port Arthur, Ontario, and installed in the vessel under the survey of the British Corporation

The machinery was now examined by the undersigned surveyor and tried out under working conditions, and found satisfactory.

In my opinion this Vessel is eligible for a record of LMC 10,46.

Notice Sent 14/3/47

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 ... £ : : When applied for,
Special ... £ 185.00 : Dec. 28 19 46
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ See Rpt. 1 : 19

John Stephen
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... FEB. 21 MAR 1947

Assigned LMC 10.46.

FITTED FOR OIL FUEL — FLASH POINT ABOVE 150°F. F.D. O.G.



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