Rpt. 4. No. 4276

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office JAN 14 1939

Date of writing Report ..... 19 .... When handed in at Local Office ..... 19 .... Port of Shanghai

No. in Reg. Book. 33775 on the "SIANG WO" Survey held at Shanghai Date, First Survey March 24th Last Survey July 21st 1937 (Number of Visits 4) Tons Gross 2595 Net 1515

Built at Hong Kong By whom built Hong Kong & Whampoa Dock Co., Ltd Yard No. 625 When built 1926

Engines made at Hong Kong By whom made Hong Kong & Whampoa Dock Co., Ltd. Engine No. When made 1926

Boilers made at Shanghai By whom made Shanghai Dock & Eng. Co., Ltd Boiler No. When made 1926

Registered Horse Power I.H.P. 1550 Owners Indo-China S.N. Co, Ltd. Port belonging to Shanghai

Nom. Horse Power as per Rule 310 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended Yangtze River Service

---

**ENGINES, &c.**—Description of Engines Reciprocating. Twin Screw Revs. per minute 200

Dia. of Cylinders 13½", 22", 35" ✓ Length of Stroke 18" ✓ No. of Cylinders 6 ✓ No. of Cranks 6 ✓

**Crank shaft,** dia. of journals as per Rule — as fitted 6¾" ✓ Crank pin dia. 6¾" ✓ Crank webs Mid. length breadth 11" ? Mid. length thickness 4½" ✓ shrunk Thickness parallel to axis — Thickness around eye-hole —

**Intermediate Shafts,** diameter as per Rule — as fitted 6½" ✓ **Thrust shaft,** diameter at collars as per Rule — as fitted 6¾" ✓

**Tube Shafts,** diameter as per Rule — as fitted — **Screw Shaft,** diameter as per Rule — as fitted 7 13/16" ? 7¾" Is the { tube / screw } shaft fitted with a continuous liner { Vickers Gland / Cedarwall ? }

**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 Yes If so, state type — Cedarwall or Vickers ? Length of Bearing in **Stern Bush** next to and supporting propeller — 31"

**Propeller,** dia. 7'6" ✓ Pitch 7'-3" No. of Blades Four ✓ Material whether Moveable No Total Developed Surface 21. Sq.ft. sq. feet

**Feed Pumps** worked from the **Main Engines,** No. Two Diameter 8½" Stroke 22" Can one be overhauled while the other is at work Yes

**Bilge Pumps** worked from the **Main Engines,** No. one Diameter 7" Stroke 8" Can one be overhauled while the other is at work Yes

**Feed Pumps** { No. and size Two / How driven Steam } **Pumps** connected to the **Main Bilge Line** { No. and size — / How driven Steam }

**Ballast Pumps,** No. and size Three 8" dia **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 5 Pieces & 4" dia.

In Pump Room In Holds, &c. 5 Pieces & 4" dia.

**Main Water Circulating Pump Direct Bilge Suctions,** No. and size One & 7" dia **Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size 3¾" 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

Are all **Sea Connections** fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Valves & Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates None Are the Overboard Discharges above or below the deep water line above

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 Scupper Pipe & Bilge How are they protected Covered with wood

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 Yes Is it fitted with a watertight door Yes worked from Top Gratings E.R.

**MAIN BOILERS, &c.**—(Letter for record .....) Total Heating Surface of Boilers 1816 Sq.ft. ✓

Is Forced Draft fitted Yes ✓ No. and Description of Boilers Two Multitubular Scotch ✓ Working Pressure 200 lbs ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?

Is donkey boiler intended to 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.

Is the spare gear required by the Rules been supplied Yes

List the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building — During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 4.

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 ... Identification Mark ... Thrust shaft material ... Identification Mark

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 whole of the main and auxiliary machinery has now been examined and found in good condition, namely, cylinders pistons, valves, rods, crank, thrust and intermediate shaftings and all bearings condenser, pumps, and pumping arrangements, piping, engine seatings and holding down bolts, spare gear. all machinery examined under working condition.

This machinery has been examined on several occasions during the past few years by the Surveyors to this Society for the purpose of issuing a Certificate for the Hull, Boilers and machinery for presentation to the Consul-General in accordance with the Treaties.

The whole is, in my opinion, in sound condition and eligible for Classification with the records of survey already assigned.

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 ... £ : :

Special ... ... £ : : See Hull Report + correspondence regarding fees.

Donkey Boiler Fee ... £ – : :

Travelling Expenses (if any) £ : :

When applied for, ..... 19.....

When received, ..... 19.....

G. Pinnemore

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 21 FEB 1939

Assigned Noted