

## REPORT ON STEAM TURBINE MACHINERY. No. 47778

Received at London Office 16 JUL 1947

Date of writing Report 11<sup>TH</sup> MAY 1947 When handed in at Local Office 15<sup>TH</sup> MAY 1947 Port of New YORK

No. in Survey held at NEW YORK Date, First Survey 24<sup>TH</sup> MARCH 47 Last Survey 23<sup>RD</sup> APRIL 1947

Reg. Book 9339 on the SINGLE SCREW STEAMER "TANQUEBAR" ex "KINGS POINT VICTORY" (Number of Visits 6)

Tons { Gross 7604  
Net 4549

Built at BALTIMORE MD. By whom built BETHLEHEM-FAIRFIELD SHYDS INC Yard No. 2480 When built 6-1945

Engines made at PITTSBURG, PA By whom made WESTINGHOUSE MANEG CORP Engine No. LP4A 2217 When made 6-1945

Boilers made at EDGE MOOR, DEL. By whom made EDGE MOOR IRON WORKS Boiler No. S 3715 When made 6-1945

Shaft Horse Power at Full Power 6000 Owners EAST ASIATIC CO LTD. Port belonging to COPENHAGEN

Nom. Horse Power as per Rule 1296 1354 Is Refrigerating Machinery fitted for cargo purposes YES Is Electric Light fitted YES

Trade for which Vessel is intended MN-1520

## STEAM TURBINE ENGINES, &amp;c.—Description of Engines. CROSS COMPOUND DOUBLE REDUCTION GEARED TURBINES.

Ahead TWO Direct coupled, single reduction geared } to ONE propelling shafts. No. of primary pinions to each set of reduction gearing TWO

Astern ONE double reduction geared }

direct coupled to { Alternating Current Generator ✓ phase ✓ periods per second } rated ✓ Kilowatts ✓ Volts at ✓ revolutions per minute; Direct Current Generator

supplying power for driving ✓ Propelling Motors, Type ✓

rated ✓ Kilowatts ✓ Volts at ✓ revolutions per minute. Direct coupled, single or double reduction geared to ✓ propelling shafts.

TURBINE BLADING.	H. P.			I. P.			L. P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION	1 7/8	1										
2ND	1 1/2	1										
3RD	1 1/4 tapering to 2 1/16	19										
4TH												
5TH												
6TH												
7TH												
8TH												
9TH												
10TH												
11TH												
12TH												

Shaft Horse Power at each turbine { H.P. 3000  
I.P. 3000  
L.P. 3000 } Revolutions per minute, at full power, of each Turbine Shaft { H.P. 5410  
I.P. 3907  
L.P. 3907 } 1st reduction wheel 629  
main shaft 100 ✓

Rotor Shaft diameter at journals { H.P. 4"  
I.P. 6 1/4"  
L.P. 6 1/4" } Pitch Circle Diameter { 1st pinion HP 9.480  
2nd pinion 17.696 } 1st reduction wheel 58.635  
main wheel 111.444" Width of Face { 1st reduction wheel TWO x 8 1/2"  
main wheel 34 1/4"

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 29 3/8"  
2nd pinion 32 3/4" } 1st reduction wheel 32 3/4  
main wheel 25 1/4

Flexible Pinion Shafts, diameter { 1st 4"  
2nd } Pinion Shafts, diameter at bearings External 1st 6"  
Internal 1st SOLID 2nd 14" diameter at bottom of pinion teeth { 1st ✓  
2nd ✓

Wheel Shafts, diameter at bearings { 1st 14"  
main 18" } diameter at wheel shroud, { 1st 15 3/4"  
main 20 1/2" } Generator Shaft, diameter at bearings ✓

Propelling Motor Shaft, diameter at bearings ✓

Intermediate Shafts, diameter as per rule as fitted 16" ✓ Thrust Shaft, diameter at collars as per rule as fitted 10" ✓ Tube Shaft, diameter as per rule as fitted ✓

Screw Shaft, diameter as per rule as fitted NOT DRAWN. Is the tube screw } shaft fitted with a continuous liner { YES } Bronze Liners, thickness in way of bushes as per rule as fitted 1"

Thickness between bushes as per rule as fitted 1" Is the after end of the liner made watertight in the propeller boss YES 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 NO Length of Bearing in Stern Bush next to and supporting propeller 5'-11 1/2" ✓

Propeller, diameter 18.25' Pitch 17.5' @ 6R No. of Blades 4 State whether Moveable NO Total Developed Surface square feet.

If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine YES ✓ Can the H.P. or I.P. Turbine exhaust direct to the Condenser YES No. of Turbines fitted with astern wheels ONE ✓ Feed Pumps { No. and size TWO 11x12 VERT SIMPLEX ONE TURBO 185 GPM CENTR  
How driven STEAM ONE TURBO 200 GPM. " BOTH STEAM

Pumps connected to the Main Bilge Line { No. and size THREE 10x11x12 VERT DUPLX (BILGE + BALLAST, GSP + STEY GSP)  
How driven STEAM

Ballast Pumps, No. and size TWO 10x11x12 (GSP + OETRAFER) Lubricating Oil Pumps, including Spare Pump, No. and size ONE 7 1/2 x 9 x 12 VERT DUPLX

Are two independent means arranged for circulating water through the Oil Cooler YES ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room TWO 3" DIA. FOUR 2 1/2" DIA IN COFFERDAMS. ONE 2" DIA SLUDGE TANK. ONE 3" DIA TUNNEL.

In Holds, &c. ONE 3" DIA IN HOLDS NOS 1 + 5, TWO 3" DIA IN HOLDS NOS 2, 3 + 4 (P+S) JOINING 5" RANGE, ONE 3" DIA FORE & AFT PEAK TANKS.

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE 14" DIA ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE 5" DIA ✓ 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 ON BOXES OR SPOOLS Are they fitted with Valves or Cocks VALVES

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 ✓

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 YES ✓ Is it fitted with a watertight door YES ✓ worked from ER FLOOR LEVEL



BOILERS, &c.— (Letter for record ) Total Heating Surface of Boilers 12622 SQ FEET  
Is Forced Draft fitted YES No. and Description of Boilers TWO SM. TYPE WATER TUBE BOILERS Working Pressure 525 LBS.  
Is a Report on Main Boilers now forwarded? YES  
Is { a Donkey } Boiler fitted? No If so, is a report now forwarded?   
Plans. Are approved plans forwarded herewith for Shafting YES Main Boilers next mail Auxiliary Boilers Donkey Boilers  
(If not state date of approval)  
Superheaters next mail General Pumping Arrangements YES Oil Fuel Burning Arrangements YES  
Spare Gear. State the articles supplied: COMPLETE TO RULE REQUIREMENTS.

The foregoing is a correct description,

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—Casings HP 31. MAR 47 Rotors HP 31. 3. 47 Blading HP 31. 3. 47 Gearing 31. 3. 47  
Wheel shaft 7. 4. 47 Thrust shaft 7. 4. 47 Intermediate shafts 7. 4. 47 Tube shaft Screw shaft  
Propeller Stern tube Engine and boiler seatings 24<sup>th</sup> MARCH 47 Engine holding down bolts 29<sup>th</sup> MARCH 47  
Completion of pumping arrangements Boilers fixed Engines tried under steam 18<sup>th</sup> APRIL 47  
Main boiler safety valves adjusted 18<sup>th</sup> APRIL 47 Thickness of adjusting washers  
Rotor shaft, Material and tensile strength Identification Mark  
Flexible Pinion Shaft, Material and tensile strength Identification Mark  
Pinion shaft, Material and tensile strength Identification Mark  
1st Reduction Wheel Shaft, Material and tensile strength Identification Mark  
Wheel shaft, Material OH STEEL Identification Mark Thrust shaft, Material OH STEEL Identification Mark  
Intermediate shafts, Material OH STEEL Identification Marks AB2 B. SET45-244 Tube shaft, Material Identification Marks  
Screw shaft, Material OH STEEL Identification Marks Steam Pipes, Material OH STEEL Test pressure 780 LBS.  
Date of test 29<sup>th</sup> MARCH 1947 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  
Is this machinery a duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery & boilers of this vessel were constructed under the Special Supervision of American Bureau of Shipping Surveyors. The condition & standard of workmanship are considered to be good & satisfactory.  
The main & auxiliary machinery as fitted for survey (See Rpt 9) are in good condition & were all examined under working conditions & found satisfactory.  
The machinery & boilers of this vessel are eligible, in my opinion, to be classed with this Society, with a record of HMC 4. 47 when the survey has been completed. It is recommended for the favourable consideration of the Committee.

The amount of Entry Fee	£	✓	When applied for,
Special	£	\$ 600	19
Donkey Boiler Fee	£	✓	When received,
Travelling Expenses (if any)	£	\$ 5	19

Y. Bloomfield  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JUN 11 1947 J. G. F.

Assigned Glass brute templated



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