

AUXILIARY
REPORT ON STEAM TURBINE MACHINERY. No. 9412

Received at London Office **3 APR 1950**

Reporting Report **2nd March, 1950** When handed in at Local Office **2nd March, 1950**. Port of **PHILADELPHIA, PA.**
 Survey held at **Essington, Pa.** Date, First Survey **25th Feb., 1949** Last Survey **26th Jan., 1950.**
 Book on the **S.S. "SOVAC COMET"** (Number of Visits **five**) Tons {Gross **17597.94**
 Net **-**
 at **Chester, Pa.** By whom built **SunSB & DD Co.** Yard No. **574** When built **1949-50**
 made at **Essington, Pa.** By whom made **Westinghouse E. & M. Co.** Engine No. **5A1124-58** When made **1949**
 made at **Barberton, Ohio** By whom made **Babcock & Wilcox Co.** Boiler No. **MB-4342** When made **"**
 Horse Power at Full Power **12,500** Owners **Tankers Navigation Corp.** Port belonging to **Panama**
 Horse Power as per Rule **3096** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
 for which Vessel is intended **Foreign**

AM TURBINE ENGINES, &c.—Description of Engines **Two turbo driven 300 K.W. generating sets.**

Turbines **1** ~~XXXXXX~~ } **1** ~~XXXXXX~~ propelling shafts. No. of primary pinions to each set of reduction gearing **1**
 Astern **D.C.** ~~XXXXXX~~ }
 coupled to ~~XXXXXX~~ Generator phase periods per second } rated **300** Kilowatts **240** Volts at **1200** revolutions per minute;
 driving power for driving ~~XXXXXX~~ **Ship's Electrical Gear**
 Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

MANUFACTURER	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.
EXPANSION	.933	25.496										
,25,	1.400	25.745										
"	1.820	25.939										
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Horse Power at each turbine { H.P. **300 KW**
 I.P. **Revolutions per minute, at full power, of each Turbine Shaft**
 L.P. **5930** 1st reduction wheel **1200**
 main shaft **1200**
 Shaft diameter at journals { H.P. **2 1/2"**
 I.P. **Pitch Circle Diameter** { 1st pinion **5.063"** 1st reduction wheel **25.009"** Width of Face { 1st reduction wheel **6.000"**
 L.P. **2nd pinion** main wheel **5.594"** main wheel

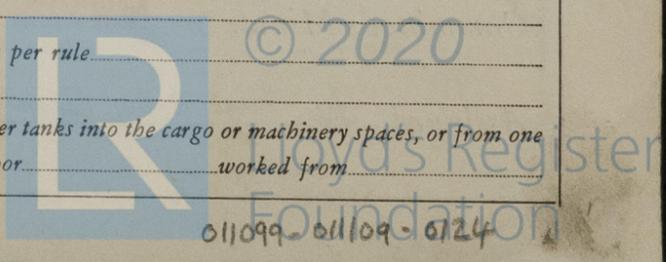
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion **5.594"** 1st reduction wheel
 2nd pinion main wheel **5.594"**
 Pinion diameter { 1st **2.495"** External 1st { **2.495"** 2nd { diameter at bottom of pinion teeth { 1st **4.833"**
 2nd Internal 2nd { diameter at bearings { 2nd **3.990"**
 Pinion Shafts, diameter at bearings { 1st **3.990"** diameter at wheel shroud, { 1st **25.209"** Generator Shaft, diameter at bearings **3.990"**
 2nd main Propelling Motor Shaft, diameter at bearings

Intermediate Shafts, diameter as per rule Thrust Shaft, diameter at collars as per rule Tube Shaft, diameter as per rule
 as fitted Is the { tube } shaft fitted with a continuous liner { Bronze Liners, thickness in way of bushes as per rule
 as fitted screw } as fitted
 Distance between bushes as per rule 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
 as fitted

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a 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
 appliance fitted at the after end of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet.
 Are arrangements made so that steam can be led direct to the L.P. Turbine Can the H.P. or I.P. Turbine exhaust direct to the

No. of Turbines fitted with astern wheels Feed Pumps { No. and size
 How driven
 Pumps connected to the Main Bilge Line { No. and size
 How driven
 Lubricating Oil Pumps, including Spare Pump, No. and size
 independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 No. and size:—In Engine and Boiler Room

Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room
 No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes
 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
 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
 How are they protected
 Are pipes pass through the bunkers Have they been tested as per rule
 Are pipes pass through the deep tanks
 Are Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 Are arrangements 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



BOILERS, &c.— (Letter for record) Total Heating Surface of Boilers

Is Forced Draft fitted No. and Description of Boilers Working Pressure

Is a Report on Main Boilers now forwarded?

Is a Donkey or Auxiliary Boiler fitted? If so, is a report now forwarded?

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 Arrangements

Spare Gear. State the articles supplied: Rule Requirements.

The foregoing is a correct description,

Dates of Survey while building During progress of work in shops - 25th Feb., 26th Feb., 3rd March, 1949 During erection on board vessel - 23rd and 26th January, 1950. Total No. of visits Five

Dates of Examination of principal parts—Casings 26 Feb., 1949 Rotors 26th Feb., 1949 Blading 26th Feb., 1949 Gearing 26 Feb.

Wheel shaft Thrust shaft Intermediate shafts Tube shaft Screw shaft

Propeller Stern tube Engine and boiler seatings Engine holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Rotor shaft, Material and tensile strength O.H. Steel Identification Mark

Flexible Pinion Shaft, Material and tensile strength Identification Mark

Pinion shaft, Material and tensile strength O.H. Steel Identification Mark

1st Reduction Wheel Shaft, Material and tensile strength Identification Mark

Wheel shaft, Material Identification Mark Thrust shaft, Material Identification Mark

Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Marks

Screw shaft, Material Identification Marks 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

Is this machinery a duplicate of a previous case yes If so, state name of vessel S.S. "SOVAC PEGASUS" - Hulls

General Remarks (State quality of workmanship, opinions as to class, &c. These turbines were built under the Survey of A.B.S. and war surplus stock modified to suit the steam conditions of the vessel, in accordance with the approved plans. They have been satisfactorily installed on board the vessel, tried under full power and found satisfactory. Megger tests and high potential tests were carried out and found to be within the requirements of the A.I.E.E.)

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

Table with 4 columns: Fee Type, Amount, When applied for, and other details. Includes Entry Fee, Special, Donkey Boiler Fee, and Travelling Expenses.

Handwritten signature and stamp: Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAR 15 1950

Assigned See First Entry Report attached.

