

REPORT ON STEAM TURBINE MACHINERY. No. 47899

Received at London Office 27 OCT 1947

Report made at **HOBOKEN NJ** Date, First Survey **4TH JUNE** Last Survey **23RD JULY 1947**
 on the **SINGLE SCREW "GRAVENCHON" EX "SEDAN"** (Number of Visits **8**)
 made at **CHESTER PA** By whom built **SUN S.B. AND DRY DOCK CO.** Yard No. **462** When built **4, 1945**
 made at **LYNN MASS** By whom made **GENERAL ELECTRIC CO.** Engine No. When made **4, 1945**
 made at **BARBERTON OHIO** By whom made **BABCOCK AND WILCOX CO.** Boiler No. When made **4, 1945**
 Horse Power at Full Power **6000** Owners **GOVERNMENT DE LA REPUBLIQUE FRANCAISE** Port belonging to **LE HAVRE**
 Horse Power as per Rule **1324** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **YES**
 for which Vessel is intended **PETROLEUM IN BULK**

M TURBINE ENGINES, &c.—Description of Engines ONE CURTIS IMPULSE 10 STAGE TURBINE

Ahead **ONE** Direct coupled, single reduction geared } to propelling shafts. No. of primary pinions to each set of reduction gearing
 Astern **✓** double reduction geared }
 coupled to { Alternating Current Generator **3** phase **62** periods per second } rated **5400** Kilowatts **2370** Volts at **3715** revolutions per minute;
 driving power for driving **ONE** Propelling Motor, Type **3 PHASE, 62 CYCLE, 80 POLE, REVOLVING-FIELD, SALIENT POLE, SYNCHRONOUS**
6000 BHP Kilowatts **2300** Volts at **90** revolutions per minute. Direct coupled, single or double reduction geared to **ONE** propelling shafts.

	H. P.			I. P.			L. P.			ASTERN.		
BINE DING.	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	7/8"	34"	2									
"	1"	34"	1									
"	1 1/4"	34 3/8"	1									
"	1 5/8"	35 1/4"	1									
"	1 7/8"	42 1/2"	1									
"	1 3/8"	43 1/2"	1									
"	2 1/8"	45 1/2"	1									
"	2 1/2"	47"	1									
"	5 1/2"	49 1/2"	1									
"	9"	56"	1									

Horse Power at turbine **6000** Revolutions per minute, at full power, of Turbine Shaft **3715** 1st reduction wheel
 L.P. **90** main shaft
 Shaft diameter at journal: H.P. **5 AND 10"** Pitch Circle Diameter { 1st pinion 1st reduction wheel
 L.P. 2nd pinion main wheel
 Width of Face { 1st reduction wheel
 main wheel
 between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 1st reduction wheel
 2nd pinion main wheel
 Pinion Shafts, diameter at bearings External 1st { 2nd { diameter at bottom of pinion teeth { 1st { 2nd {
 Internal {
 Shafts, diameter at bearings { 1st { diameter at wheel shroud { 1st { Generator Shaft, diameter at bearings **10"**
 main { main { Propelling Motor Shaft, diameter at bearings **18 1/2" 17 1/2"**
 Intermediate Shafts, diameter as per rule **16 1/2"** Thrust Shaft, diameter at collars as per rule **17.325** Tube Shaft, diameter as per rule
 as fitted **16 7/8"** as fitted **18" 17 1/2"** as fitted
 Shaft, diameter as per rule **18 5/8"** Is the { screw } shaft fitted with a continuous liner { YES } Bronze Liners, thickness in way of bushes as per rule **85"**
 as fitted **18 5/8"** as fitted **1 1/8"**
 ss between bushes as per rule **65** 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
 as fitted **1**
 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
 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 **No** Length of Bearing in Stern Bush next to and supporting propeller **7'-3"**
 ler, diameter **19'-6"** Pitch **17'-6"** No. of Blades **4** State whether Moveable **No** Total Developed Surface **138.3** square feet.
 le Screw, are arrangements made so that steam can be led direct to the L.P. Turbine **ONE TURBINE ONLY** Can the H.P. or L.P. Turbine exhaust direct to the
 er **✓** No. of Turbines fitted with astern wheels **NONE** Feed Pumps { No. and size **2. CENT. 200 GPM.** 1- **SIMPLEX 10" X 7" X 24"**
 How driven **TURBINE** **STEAM CYL.**
 connected to the Main Bilge Line { No. and size **2 - BILGE @ 175 GPM.** 1- **GEN SERVICE @ 450 GPM.**
 How driven **ELECTRIC MOTOR** **ELECTRIC MOTOR**
 Pumps, No. and size **ONE @ 10" X 7" X 10" DUPLEX** Lubricating Oil Pumps, including Spare Pump, No. and size **2 - VERT ROTARY 60 GPM**
 independent means arranged for circulating water through the Oil Cooler **YES** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 No. and size:—In Engine and Boiler Room **10 @ 3"** **2 at 4"**
 ls, &c. **BOTSWAINS STORE 2-1" EJECTORS CHAIN LOCKER 2" EJECTOR FOR PUMP ROOM** { **ONE 10" X 7" X 10" BILGE PUMP STEAM DUPLEX**
2 1/2" SECTION P4S DRY STORES 2 1/2" P4S PUMP ROOM
 Water Circulating Pump Direct Bilge Suctions, No. and size **1- 18" DIA.** Independent Power Pump Direct Suctions to the Engine Room
 No. and size **2 @ 4"** 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 **YES**
 Sea Connections fitted direct on the skin of the ship **CHESTS OR SPOOL PIECES** Are they fitted with Valves or Cocks **VALVES**
 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**
 y 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 **No**
 pipes pass through the bunkers **NONE** How are they protected
 pipes pass through the deep tanks **NONE** Have they been tested as per rule
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **YES**
 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
 ment to another **YES** Is the Shaft Tunnel watertight **YES** Is it fitted with a watertight door **YES** worked from **FLOOR LEVEL**

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BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 9868
Is Forced Draft fitted YES No. and Description of Boilers 2 - BABCOCK & WILCOX, SINGLE PASS STRAIGHT TUBE Working Pressure 50
Is a Report on Main Boilers now forwarded? YES
Is a Donkey Boiler fitted? No If so, is a report now forwarded? ✓
an Auxiliary
Plans. Are approved plans forwarded herewith for Shafting YES Main Boilers YES Auxiliary Boilers ✓ Donkey Boilers
(If not state date of approval)
Superheaters YES General Pumping Arrangements YES Oil Fuel Burning Arrangements YES
Spare Gear. State the articles supplied: AS PER 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

AMERICAN BUREAU SURVEY

Dates of Examination of principal parts—Casings Rotors Blading Gearing
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 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 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 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 If so, have the requirements of the Rules been complied with
Is this machinery a duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel was constructed under the Special Survey, and to the requirements, of the American Bureau of Shipbuilding and U.S. Coast Guards, and the materials and workmanship are considered satisfactory

The scantlings, and general arrangements have been checked as far as practicable and found to conform to available plans, copies of which are attached herewith

For recommendations as to class etc please see Report 9 attached

The amount of Entry Fee £ : : When applied for,
Special See : : ✓ 19
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ : : 19

H. G. Daunders
Engineer Surveyor to Lloyd's Register of Shipping.

NEW YORK OCT 1 1947

Committee's Minute

Assigned LC-7, 47.



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Foundation