

REPORT ON STEAM TURBINE MACHINERY.

No. 3594

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Received at London Office 20 SEP 1941

Date of writing Report May 26, 1941 When handed in at Local Office 5 July 41 Port of Boston, Massachusetts
To. in Survey held at Lynn, Mass. Date, First Survey June 20, 1940 Last Survey December 20, 1940
Reg. Book. on the Hulls 208, 209, 210 S/S STANVAC MELBOURNE
built at Chester, Pa. By whom built Sun S. B. Company Yard No. 208-9-10 When built 1941
Engines made at Lynn, Mass. By whom made General Electric Co. Engine No. 47101 When made 1940
Boilers made at Barborton Ohio By whom made Babcock & Wilcox Boiler No. 1492 When made 1941
Shaft Horse Power at Full Power 4000 Owners Port belonging to
Nom. Horse Power as per Rule 1006 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Trade for which Vessel is intended Carrying Petroleum in bulk.

STEAM TURBINE ENGINES, &c.—Description of Engines One Turbine connected to 300 KW generator thru single reduction gears.

No. of Turbines One Direct coupled, single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing One
Direct coupled to Alternating Current Generator phase periods per second rated 300 Kilowatts 240 Volts at 1200 revolutions per minute;
for supplying power for driving Propelling Motors, Type Auxiliary Machinery & Electric Lighting
rated Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

Table with columns: TURBINE, H.P., I.P., L.P., ASTERN. Rows include: ADING, EXPANSION, 1st Wheel, 2nd, 3rd, etc. with dimensions for height of blades, diameter at tip, and no. of rows.

Shaft Horse Power at each turbine H.P. 5636 1st reduction wheel
I.P. Revolutions per minute, at full power, of each Turbine Shaft I.P. main shaft 1200
L.P.
Motor Shaft diameter at journals H.P. 3 1/2" Pitch Circle Diameter 1st pinion 5.4414" 1st reduction wheel
I.P. 2nd pinion main wheel 25.5585" Face main wheel 7 1/2"
L.P. Width of Face

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 6-5/8" & 7-5/8" 1st reduction wheel
2nd pinion main wheel 6-3/4"
Pinion Shafts, diameter at bearings 1st 4" 2nd diameter at bottom of pinion teeth 1st 5.0664"
2nd

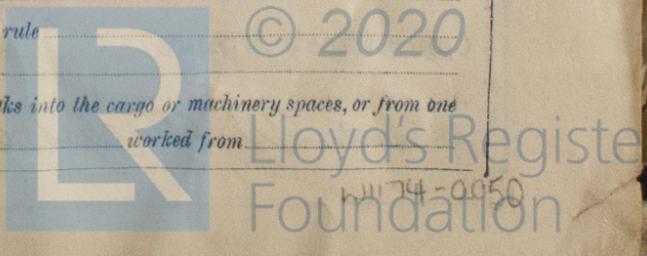
Wheel Shafts, diameter at bearings 1st 4" diameter at wheel shroud 1st 25.827" Generator Shaft, diameter at bearings 3 1/2"
main Propelling Motor Shaft, diameter at bearings
Intermediate Shafts, diameter as per rule Thrust Shaft, diameter at collars as per rule Tube Shaft, diameter as per rule
as fitted

Propeller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet.
Single Screw, 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
Condenser 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
Ballast Pumps, No. and size 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, No. and size:—In Engine and Boiler Room

Oil Holds, &c.
Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes
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 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
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
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
apartment 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 } Boiler fitted? _____ If so, is a report now forwarded? _____
 { an Auxilliary }

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:— Two gear and two pinion bearings, one thrust bearing, fourteen coupling bolts, six turbine casing bolts, ONE turbine bearing.

PER SHIP

The foregoing is a correct description,

General Electric Co. J. T. Zolan Manufacturer

Dates of Survey { During progress of work in shops -- } June 20, July 26, Sept. 23 - 26, Oct. 11 - 22, 1940 December 19, 20, 1940
 { During erection on board vessel --- }
 building { Total No. of visits } Eight

Dates of Examination of principal parts—Casings December 20 Rotors December 20 Blading December 20 Gearing December 20

Wheel shaft December 20 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 96,000 lbs. per. sq. in. Identification Mark 344 20-12-40

Flexible Pinion Shaft, Material and tensile strength ✓ Identification Mark ✓

Pinion shaft, Material and tensile strength " " 104,000 " " " " Identification Mark: 344 20-12-40

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

Wheel shaft, Material O.H. Steel Identification Mark 344 20-12-40 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 _____ If so, state name of vessel _____

General Remarks (State quality of workmanship, opinions as to class, &c. The geared Turbine electric generator has been built under special survey, tested under steam at full load and the oil governors adjusted to trip at 1340 RPM. The quality of workmanship and materials is good. The units have been forwarded to Sun Shipbuilding Company, Chester, Pa.

This generating set has been properly installed on board the vessel, tried out under full power & found satisfactory.

The amount of Entry Fee ... £	:	:	When applied for,
Special £	75: 00	:	May 26, 19 41
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	2: 50	:	19

Thomas Bowie
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK AUG 18 1941

Assigned *See attached First Entry Report*