

AUXILIARY
REPORT ON STEAM TURBINE MACHINERY. No. 3598
Received at London Office 4 NOV 1941

pt. 4a.

Date of writing Report May 26, 1941 When handed in at Local Office 19 Port of Boston, Mass.
No. in Survey held at Lynn, Mass. Chester Pa Date, First Survey July 17, 1940 Last Survey Feb. 25, 1941
Reg. Book. on the Hulls 208, 209, 210. S/S STANVAC WELLINGTON (Number of Visits 10013 Gross 6397 Net)
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. 47105 When made 1941
Boilers made at Barberton Ohio By whom made Barbock & Wilson Boiler No. 1494-1-2 When made "
Shaft Horse Power at Full Power 4000 Owners Petroleum Shipping Co Port belonging to Panama
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes
Trade for which Vessel is intended Carrying Petroleum in bulk.

TEAM 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 generators 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.

TURBINE	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	1.96"	25.5"	25.96"	2								
2nd	1.504"	1.03"	25.5"	25.90"	2							
3rd	1.374"	2.37"	26.65"	26.76"	2							
4th												
5th												
6th												
7th												
8th												
9th												
10th												
11th												
12th												

Shaft Horse Power at each turbine H.P. 5636 1st reduction wheel I.P. 1200 main shaft

Rotor Shaft diameter at journals H.P. 3 1/2" Pitch Circle Diameter 1st pinion 5.4414" 1st reduction wheel Width of Face 1st reduction wheel 7 1/2"

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 6-3/4" main wheel

Flexible Pinion Shafts, diameter 1st 4" Pinion Shafts, diameter at bearings External 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" 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

Screw Shaft, diameter as per rule Is the tube screw shaft fitted with a continuous liner Bronze Liners, thickness in way of bushes as per rule as fitted

Thickness 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 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 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.
If 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

In Holds, &c. Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room

Bilges, No. and size 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 they fitted with Valves or Cocks

Are all Sea Connections fitted direct on the skin of the ship 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 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 } Boiler fitted? If so, is a report now forwarded?
 { an Auxiliary }

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. Nolan Manufacturer

Dates of Survey while building { During progress of work in shops -- } July 17, Aug. 26, Oct. 4, 11, 22, 1940, February 24, 25, 1941
 { During erection on board vessel --- }
 Total No. of visits Seven

Dates of Examination of principal parts—Casings February 25 Rotors February 25 Blading February 25 Gearing February 25

Wheel shaft February 25 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 99,000 lbs. per. sq. in. Identification Mark 365 25-2-41

Flexible Pinion Shaft, Material and tensile strength Identification Mark

Pinion shaft, Material and tensile strength " " 102,000 " " " " Identification Mark 365 25-2-41

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

Wheel shaft, Material O.H. Steel Identification Mark 365 25-2-41 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.

These units have been satisfactorily installed on board the vessel. Tried out under full power with satisfactory results.

The amount of Entry Fee ... £ : : When applied for,
 Special ... £ 75:00 : May 26, 1941
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ 2:50 : 19...

Thomas Larrie W. R. Cunham
 Engineer Surveyor to Lloyd's Register of Shipping.

NEW YORK OCT 1 1941

Committee's Minute

Assigned See Phil. Rpt. NO. 8120



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