

REPORT ON STEAM TURBINE MACHINERY.

No. 8492
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Writing Report 3 July 1947 When handed in at Local Office 11 July 1947 Port of Baltimore, Maryland
 Survey held at Baltimore, Maryland Date, First Survey March 26th, Last Survey April 22nd, 1947
 (Number of Visits 6)
 on the S.S. "NIKOBAR" (ex "Rushville Victory") Tons Gross 7604
Net 4549
 Baltimore, Maryland By whom built Bethlehem Fairfield Shipyard, Inc. Yard No. When built 1945
 made at Pittsburgh, Pa. By whom made Westinghouse Electric Corp. Engine No. A-2112 When made 1945
 made at New York By whom made Combustion Engineering Company Boiler No. S 11279 When made 1945
 Horse Power at Full Power 6,000 Owners A/S Det Ostasiatiska Kompagni Port belonging to Copenhagen
 Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
 for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines

Turbines Ahead Direct coupled, single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing
Astern double reduction geared
 Applied to Alternating Current Generator phase periods per second rated Kilowatts Volts at revolutions per minute;
Direct Current Generator
 Driving power for driving Propelling Motors, Type
 Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

EXPANSION	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.
			21						11			3

Horse Power at each turbine H.P. 3,000 I.P. - L.P. 3,000 **Revolutions per minute, at full power, of each Turbine Shaft** H.P. 5,410 I.P. - L.P. 3,907
 1st reduction wheel 630
 main shaft 100

Shaft diameter at journals H.P. 4" **Pitch Circle Diameter** 1st pinion 6.647" 1st reduction wheel 58.635" **Width of Face** 1st reduction wheel 8 1/2" (Each Helix.)
I.P. - 2nd pinion 9.480" main wheel 111.444" main wheel 15 7/8" (Each Helix.)
L.P. 6.250"

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

Pinion diameter 1st HP & LP 4" **Pinion Shafts, diameter at bearings** External 1st 5.988" 2nd 13.984" diameter at bottom of pinion teeth 1st 6.410"
2nd - ~~External~~

Shafts, diameter at bearings 1st 13.984" diameter at wheel shroud, 1st 15.758" **Generator Shaft, diameter at bearings -**
main 17.979" main 20.510" **Propelling Motor Shaft, diameter at bearings -**

Intermediate Shafts, diameter as per rule 15.66" **Thrust Shaft, diameter at collars** as per rule -
as fitted 16.00" as fitted -

Shaft, diameter as per rule - **Screw Shaft, diameter** as per rule 17.18" as fitted 17.7/8" Is the screw shaft fitted with a continuous liner Yes
as fitted -

Size Liners, thickness in way of bushes as per rule 13/16" Thickness between bushes as per rule 5/8" Is the after end of the liner made watertight in the
as fitted 1" as fitted 13/16" Yes

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 -
 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
No If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 5' 11 1/2"

Propeller, diameter 18' 3" Pitch 17' 6" No. of Blades 4 State whether Moveable No Total Developed Surface - square feet.
Angle 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
user Yes No. of Turbines fitted with astern wheels 1 **Feed Pumps** No. and size 2 Vert. 11"x7"x24": 1 Turbo GMP 185: 1 Turbo GMP 200
How driven Steam

Pumps connected to the Main Bilge Line No. and size 2 Vertical Duplex 10" x 11" x 12" How driven Steam (Vertical Steam) (Electrical)

Oil Pumps, No. and size 2 Vert. Duplex 10"x11"x12" **Lubricating Oil Pumps, including Spare Pump, No. and size 1-7 1/2"x9x12: 1 GMP 980**
are independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

as, No. and size:—In Engine and Boiler Room 2-2 1/2" For'd : 2-2 1/2" Aft : 2-3" Aft. Coff. : 1-5" Aft. Port In Pump Room
Holds, etc. No. 1 2-3" : No. 2 2-3" : No. 3 2-3" : No. 4 2-3" : Shaft Alley 1-6"

Water Circulating Pump Direct Bilge Suctions, No. and size 1-12" **Independent Power Pump Direct Suctions to the Engine Room**
No. and size 1-5" Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes

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 Yes Are they fitted with Valves or Cocks Valves

Discharges fitted 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
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 Yes

How are they protected -
 pipes pass through the deep tanks None Have they been tested as per rule Yes

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
 compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Bottom Platform

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 4308 square feet
 Is Forced Draft fitted Yes No. and Description of Boilers 2 B & W W.T. Boilers Working Pressure 525
 Is a Report on Main Boilers now forwarded? Yes
 Is a Donkey Boiler fitted? No If so, is a report now forwarded? —
 { an Auxiliary }
 Is the donkey boiler intended to be used for domestic purposes only
 Plans. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers — Donkey Boilers —
 (If not state date of approval)
 Superheaters — General Pumping Arrangements — Oil Fuel Burning Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes, with the exception of an impeller shaft for main condenser circ pump and a propeller.
 State the principal additional spare gear supplied Tail Shaft - Certificate No. 8319-1 A.B. 4-18-47

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 10-4-47 Rotors 10-4-47 Blading 10-4-47 Gearing 10-4-47
 Wheel shaft 10-4-47 Thrust shaft 10-4-47 Intermediate shafts — Tube shaft — Screw shaft —
 Propeller — Stern tube — Engine and boiler seatings 10-4-47 Engine holding down bolts 10-4-47
 Completion of filling sea connections — Completion of pumping arrangements — Boilers fixed — Engines tried under steam —
 Main boiler safety valves adjusted 22-4-47 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 — 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. No 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 —
 If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery a duplicate of a previous case Yes If so, state name of vessel S.S. "SERAMPORE" (ex "Amherst")
General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built and stelled under the supervision of the American Bureau of Shipping and, as far as now seen, appears to be of good sound construction and carefully installed. On completion of survey, the two main boilers, main and auxiliary and the Electrical installation have been examined under working conditions and found satisfactory. It is of the undersigned that the machinery of this vessel is suitable to be classed with the Society with record of when the sea cocks and valves have been examined. (Classification Contemplated)

The amount of Entry Fee ... 400 : : When applied for, 11 July 1947
 Special ... £ : :
 Donkey Boiler Fee ... £ - : : When received,
 Travelling Expenses (if any) 5.25 : : 19

W. H. Lee
 Engineer Surveyor to Lloyd's Register of Shipping.

NEW YORK JUL 16 1947

Committee's Minute

Assigned Classification Contemplated



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