

Report on Steam Turbine Machinery.

No. 126100
22 OCT 1947

4a. Date of writing Report 11.10.1947 When handed in at Local Office 19 Port of Bitterhead
 Date, First Survey Last Survey 19
 Survey held at Bitterhead (Number of Visits)
 on the T.F.S. "THELIDOMUS" Tons (Gross 10448 Net 6301)
 Built at Portland, Oregon By whom built Kaiser Co. Inc. Yard No. When built 1944
 Engines made at Lynn, Mass. By whom made General Electric Co. Engine No. When made 1944
 Boilers made at By whom made Combustion Engineering Co. Inc. Boiler No. 9444 When made 1944
 Shaft Horse Power at Full Power 6000 normal Owners Anglo-Saxon Petroleum Co. Ltd. Port belonging to London
 Nom. Horse Power as per Rule 6600 max. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Grade for which Vessel is intended MN = 1485

STEAM TURBINE ENGINES, &c.—Description of Engines. Turbo-electric drive.

Number of Turbines 1 Ahead Direct coupled, single reduction geared to 1 propelling shafts. No. of primary pinions to each set of reduction gearing
 Direct coupled to Alternating Current Generator 3 phase 60/62 periods per second rated 4925 KVA 2300 Volts at 3600 revolutions per minute;
 supplying power for driving one Propelling Motor, Type Synchronous TSM 80. 5000 Kilowatts 2300 Volts at 3600 revolutions per minute;
 rated 4625 KVA 2300 Volts at 90 revolutions per minute. Direct coupled, single or double reduction geared to one propelling shafts.

TURBINE STAGING.	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 3/8 - 2 1/8		2									
2nd "	1 1/2		1									
3rd "	1 3/4		1									
4th "	2 1/8		1									
5th "	1 1/2		1									
6th "	1 7/8		1									
7th "	2 3/8		1									
8th "	3 1/8		1									
9th "	5 1/4		1									
10th "	9 3/4		1									
11th "												
12th "												

Shaft Horse Power at each turbine H.P. 5000/3415 1st reduction wheel
 I.P. Propelling Motor Shaft
 L.P. main shaft
 Motor Shaft diameter at journals H.P. 5" AFT Pitch Circle Diameter 1st pinion 1st reduction wheel
 I.P. 10" FWD 2nd pinion main wheel
 L.P. Width of Face 1st reduction wheel
 main wheel

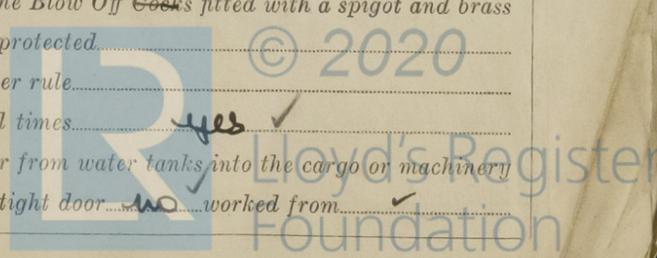
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 1st reduction wheel
 2nd pinion main wheel
 Flexible Pinion Shafts, diameter at bearings External 1st 2nd diameter at bottom of pinion teeth
 Internal 1st 2nd
 Wheel Shafts, diameter at bearings 1st main diameter at wheel shroud 1st Generator Shaft, diameter at bearings 5"
 2nd main Propelling Motor Shaft, diameter at bearings 1 1/2"

Intermediate Shafts, diameter as per rule 16.56
 as fitted 16 3/8
 Thrust Shaft, diameter at collars as per rule 14.39
 as fitted 14 1/2
 Tube Shaft, diameter as per rule 18.185
 as fitted 18 1/2
 Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per rule 0.858
 as fitted 1 1/8 Thickness between bushes as per rule 0.623
 as fitted 1 1/8 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 made by fusion through the whole thickness of the liner
 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
 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 no If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1'3"

Propeller, diameter 19'6" Pitch 14'6" No. of Blades 4 State whether Moveable no Total Developed Surface 138.3 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. Turbines exhaust direct to the
 condenser No. of Turbines fitted with astern wheels Feed Pumps No. and size 2. 200 GPM 1. 130 GPM
 How driven Steam Turbine Steam Vent Simplex
 Pumps connected to the Main Bilge Line No. and size 2. 200 GPM 1. 450 GPM
 How driven electric * Steam Vent Duplex

Ballast Pumps, No. and size 1. 300 GPM (fuel pump room) Lubricating Oil Pumps, including Spare Pump, No. and size 2. 60 GPM
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected both to Main Bilge Pumps and Auxiliary
 Bilge Pumps, No. and size:—In Engine and Boiler Room 1 at 3 1/2" 8 at 3" (incl. 1st) 4 at 2 1/2" (incl. 1st) In Pump Room
 Holds, &c. Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 at 18" Independent Power Pump Direct Suctions to the Engine Room
 Bilges, No. and size 2 at 4" Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes
 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. Not wells

Are all Sea Connections fitted direct on the skin of the ship no Are they fitted with Valves or Cocks All valves
 Are they 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
 Below Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off VALVES fitted with a spigot and brass
 covering plate no What pipes pass through the bunkers How are they protected
 Are all Pipes, Cocks, Valves and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 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 yes Is the Shaft Tunnel watertight no Is it fitted with a watertight door no worked from



BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 5644 sq. feet per boiler.
 Is Forced Draft fitted yes No. and Description of Boilers 2. Bow Type Working Pressure 160 lbs/sq. in. at apt. outlet
 Is a Report on Main Boilers now forwarded? yes
 Is a Donkey Boiler fitted? no If so, is a report now forwarded? yes
 Is the donkey boiler intended to be used for domestic purposes only? yes
 Plans. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes
 Superheaters yes General Pumping Arrangements yes Oil Fuel Burning Arrangements yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied. no

State the principal additional spare gear supplied. yes

The foregoing is a correct description,

Manufacture

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 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 fitting sea connections 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

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

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 If so, state name of vessel

General Remarks. (State quality of workmanship, opinions as to class, &c.) This report is submitted for the information of the Committee.

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

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

H. Senechal
 Engineer Surveyor to Lloyd's Register of Shipping.



MLT

Committee's Minute
 Assigned