

Rpt. 4a.

Report on Steam Turbine Machinery. No. 126380

Date of writing Report 19... When handed in at Local Office 19... Port of LIVERPOOL 17 JAN 1948
 No. in Survey held at Burkhead Date, First Survey... Last Survey...
 Reg. Book... on the S.S. "TRESUS" & "LAUREL HILL" (Number of Visits...)
 Built at Portland Oregon By whom built Kaiser-Bo Tons {Gross 10,409 Net 6,701
 Engines made at USA By whom made G.E.C. Co Yard No. 98 When built 1944/4
 Boilers made at Tennessee By whom made Combustion Eng Co Engine No. 68244 When made 1944/8
 Shaft Horse Power at Full Power 6,600 Boiler No. 9663 When made 1944/7
 Nom. Horse Power as per Rule 1054 1/2 Owners... Port belonging to...
 Trade for which Vessel is intended... Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TEAM TURBINE ENGINES, &c.—Description of Engines 10 stage Impulse type
 No. of Turbines 1 Direct coupled, single reduction geared } to... propelling shafts. No. of primary pinions to each set of reduction gearing...
 direct coupled to { Alternating Current Generator 3 phase 62 periods per second }
 for supplying power for driving one Direct Current Generator } rated 5400 KVA 2370 Kilowatts 3715 Volts at... revolutions per minute;
 rated 4625 KVA 2300 Kilowatts 90 Volts at... revolutions per minute. Direct coupled, single or double reduction geared to 1 propelling shafts.
 Propelling Motors, Type Synchronous TSM 80

TURBINE LADING.	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												
2nd												
3rd												
4th												
5th												
6th												
7th												
8th												
9th												
10th												
11th												
12th												

Shaft Horse Power at each turbine { H.P. 6000 I.P. 90 L.P. 90 } Revolutions per minute, at full power, of each Turbine Shaft { 1st reduction wheel... main shaft...
 Propeller Shaft diameter at journals { H.P. Pitch Circle Diameter { 1st pinion... 1st reduction wheel... 2nd pinion... main wheel... 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...
 Pinion Shafts, diameter at bearings { External 1st... 2nd... Internal 1st... 2nd... diameter at bottom of pinion teeth 1st... 2nd...
 Wheel Shafts, diameter at bearings { 1st... diameter at wheel shroud, { 1st... Generator Shaft, diameter at bearings... 2nd...
 Intermediate Shafts, diameter as per rule... as fitted... 16.56" 16.875" Propelling Motor Shaft, diameter at bearings 17 1/4"
 Thrust Shaft, diameter at collars as per rule... as fitted... 18.185" 18.625" Is the screw shaft fitted with a continuous liner Yes
 Liners, thickness in way of bushes as per rule... as fitted... .858" 1.125" Thickness between bushes as per rule... as fitted... .643" 1.0625" Is the after end of the liner made watertight in the
 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 so, state type... Is an approved Oil Gland or other appliance fitted at the after end of the tube...
 Propeller, diameter 19'-6" Pitch 17'-6" No. of Blades 4 State whether Moveable... Total Developed Surface... square feet.
 Can the H.P. or I.P. Turbines exhaust direct to the...
 Feed Pumps { No. and size 2 - 200 GPM How driven Steam Turbine 17130 GPM
 Pumps connected to the Main Bilge Line { No. and size 2 - 200 GPM How driven Electric 17450 GPM 1 - 300 GPM F. Tank Room
 Lubricating Oil Pumps, including Spare Pump, No. and size... 2 - 60 GPM
 Independent means arranged for circulating water through the Oil Cooler... Yes Suctions, connected both to Main Bilge Pumps and Auxiliary
 Pumps, No. and size:—In Engine and Boiler Room 1 at 3 1/2" 8 at 3" 4 at 2 1/2" In Pump Room...
 Water Circulating Pump Direct Bilge Suctions, No. and size... 1 at 18" Independent Power Pump Direct Suctions to the Engine Room
 No. and size... 2 at 4" 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... No Are they fitted with Valves or Cocks... Valves
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates... Yes Are the Overboard Discharges above or below the deep water
 Are they 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
 plate... Valves What pipes pass through the bunkers... How are they protected...
 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
 or from one compartment to another... Yes Is the Shaft Tunnel watertight... Is it fitted with a watertight door... worked from...

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers *4934 sq ft per boiler (2200)*
 Is Forced Draft fitted *yes* No. and Description of Boilers *2 Sectional Heads* Working Pressure *450 lb.*

Is a Report on Main Boilers now forwarded? *yes* If so, is a report now forwarded? *yes*

Is *a Donkey* Boiler fitted? *no* If so, is a report now forwarded? *yes*
 (an Auxiliary) Boiler fitted? *no*

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*
 (If not, state date of approval)

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

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 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 Identification Mark

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.)

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.)

		(See Report 42 attached)	
The amount of Entry Fee	£	:	When applied for.
Special	19
Donkey Boiler Fee	When received.
Travelling Expenses (if any)	£	:	19

B. Bedford
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **LIVERPOOL - 6 JAN 1948**

Assigned *See Minute on Machinery Report.*

