

Rpt. 4a.

Report on Steam Turbine Machinery. No. 126380

Date of writing Report 19... When handed in at Local Office 19... Port of... Received at London Office 17 JAN 1948

No. in Survey held at Burkhead Date, First Survey... Last Survey... (Number of Visits...)

on the S.S. "TRESUS" & "LAUREL HILL"

Built at Portland Oregon By whom built Kaiser-Bo Tons {Gross 10,449 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. (P) 9665 When made 1944/7

Nom. Horse Power as per Rule 1054 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. Type Synchronous TSM 80

Direct coupled, single or double reduction geared to 1 propelling shafts.

	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. 6600 I.P. 90 L.P. 90 }
 Revolutions per minute, at full power, of each Turbine Shaft { H.P. 90 I.P. 90 L.P. 90 }
 1st reduction wheel... main shaft...

Motor Shaft diameter at journals { H.P. 16.56 I.P. 16.875 L.P. 16.875 }
 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 { diameter at bottom of pinion teeth 1st... 2nd... }

Generator Shaft, diameter at bearings... Propelling Motor Shaft, diameter at bearings 17 1/4"

Thrust Shaft, diameter at collars { as per rule 17.5 as fitted 17.5 }

Screw Shaft, diameter { as per rule 18.185 as fitted 18.625 }
 Is the { screw } shaft fitted with a continuous liner { Yes }

Thickness between bushes { as per rule 1.125 as fitted 1.0625 }
 Is the after end of the liner made watertight in the peller boss... Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner... Yes
 Is the space charged with a plastic material insoluble in water and non-corrosive... Yes
 If so, state type... Oil Gland

Length of Bearing in Stern Bush next to and supporting propeller 87 1/2"
 No. of Bades 4 State whether Moveable... Yes

Can the H.P. or I.P. Turbines exhaust direct to the... Yes
 No. of Turbines fitted with astern wheels... 2 - 200 GPM

Feed Pumps { No. and size 2 - 200 GPM How driven Electric }
 No. and size 1 - 300 GPM Lubricating Oil Pumps, including Spare Pump, No. and size 2 - 60 GPM

Two independent means arranged for circulating water through the Oil Cooler... Yes
 Pumps, No. and size:—In Engine and Boiler Room 1 at 3 1/2" 8 at 3" Suctions, connected both to Main Bilge Pumps and Auxiliary In Pump Room... 4 at 2 1/2"

Water Circulating Pump Direct Bilge Suctions, No. and size 1 at 18"
 Independent Power Pump Direct Suctions to the Engine Room... 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 the Overboard Discharges above or below the deep water... Yes
 Are the Blow Off Cocks fitted with a spigot and brass... Yes

How are they protected... Yes
 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 or from one compartment to another... Yes
 Is the Shaft Tunnel watertight... Yes
 Is it fitted with a watertight door... Yes

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers *4934 sq ft per boiler (2 in 4)*
Is Forced Draft fitted *yes* No. and Description of Boilers *2 Sectional Headers* 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*
an Auxiliary 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 Marks. Thrust shaft, Material. Identification Marks.
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 422 attached)
The amount of Entry Fee ... £ : : When applied for.
Special ... £ : : 19
Donkey Boiler Fee ... £ : : When received.
Travelling Expenses (if any) £ : : 19

B. A. Seaford
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

See Minute on Machinery Report.

Assigned



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Foundation