

Report on Steam Turbine Machinery.

No. 128939

pt. 4a.

Date of writing Report 19... When handed in at Local Office 19... Port of...
 No. in Survey held at Birkenhead Date, First Survey Apr 12th Last Survey June 5th 1949
 Reg. Book... (Number of Visits...)
 on the SS THAUMASTUS (TC TANKER) Tons (Gross... Net...)
 Built at Portland Or. By whom built Kaiser Co Yard No. 3 When built 1945
 Engines made at Lynn Mass By whom made G.E.C. Engine No. 1945 When made 1945
 Boilers made at Chattanooga Tenn By whom made Cumt. Eng. Co Boiler No. 1945 When made 1945
 Shaft Horse Power at Full Power 6600 Owners Anglo Saxon Pet. Co Port belonging to London
 Nom. Horse Power as per Rule 1486 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended...

TEAM TURBINE ENGINES, &c.—Description of Engines... Turbo Electric Drive
 No. of Turbines One Direct coupled, single reduction geared } to propelling shafts. No. of primary pinions to each set of reduction gearing... ✓
 Astern... double reduction geared }
 Direct coupled to { Alternating Current Generator... 3 phase 60/62 periods per second } 4925/5400 KVA 2300/2370 Volts at... revolutions per minute;
 Direct Current Generator } rated...
 for supplying power for driving One Propelling Motors, Type TSM 80. Synchronous.
 rated 6000 HP 4625 H.P. 2300 Volts at 90 revolutions per minute. Direct coupled, single or double reduction geared to One propelling shafts.

TURBINE STAGES	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 7/8 - 2 1/8	33 1/16 - 33 3/4	2									
2nd "	1 1/2	33 5/8	1									
3rd "	1 3/4	34 3/16	1									
4th "	2 1/8	35	1									
5th "	1 1/2	42 1/4	1									
6th "	1 7/8	43 3/8	1									
7th "	2 5/8	44 5/8	1									
8th "	3 7/8	47 1/16	1									
9th "	5 3/4	50 1/16	1									
10th "	9 3/4	56	1									
11th "												
12th "												

Shaft Horse Power at each turbine H.P. 6000/6600 Revolutions per minute, at full power, of each Turbine Shaft H.P. 3715/3600 1st reduction wheel ✓
 H.P. — main shaft 90/93
 Propeller Shaft diameter at journals H.P. 10 Pitch Circle Diameter 5 1st pinion ✓ 1st reduction wheel ✓ Width of Face 1st reduction wheel ✓
 H.P. 48 2nd pinion ✓ main 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 shaft, diameter { 1st... Pinion Shafts, diameter at bearings External 1st ✓ 2nd ✓ diameter at bottom of pinion teeth 1st ✓
 2nd ✓ Internal 1st ✓ 2nd ✓ 2nd ✓

Wheel Shafts, diameter at bearings { 1st... diameter at wheel shroud, { 1st... Generator Shaft, diameter at bearings 5.5 1st ✓
 main ✓ main ✓ Propelling Motor Shaft, diameter at bearings 17 1/4 2nd ✓
 Intermediate Shafts, diameter as per rule 16.56 as fitted 16.875 Thrust Shaft, diameter at collars as per rule 17.37 as fitted 17.5 (18" at collar)

Tube Shaft, diameter as per rule 18.185 as fitted 18.625 Is the tubo screw shaft fitted with a continuous liner { yes ✓
 as fitted 0.858 as per rule 0.643 as fitted 31/32" 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... ✓
 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... No If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller... 7-3" (stated)

Propeller, diameter 19-6" Pitch 17-6" No. of Bades 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 1-10x7x24" (130 g/m)
 How driven... Turbo Steam

Pumps connected to the Main Bilge Line { No. and size... 2 Bilge 175 gpm 1 7/8" dia 450 gpm 1 3/4" dia (Bottom) 450 gpm
 How driven... Electric Electric
 Ballast Pumps, No. and size 1-300 gpm (700 Pump Rm) 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 Motor Room Ford 4 3/8", dt 3 3/8" shaft alloy In Pump Room Ford 2 at 3"
2 2 3/8" dia, 1 2 3/8" dt 1 2 3/8" after collection. (See sketch attached)

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 2 18" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2-4" dia Are all the Bilge Suction pipes in ER and Tunnel Well fitted with strum-boxes... Yes (Macomb strainers)
 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... Strum boxes
 Are all Sea Connections fitted direct on the skin of the ship Steel pipes welded to shell Are they fitted with Valves or Cocks... 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 level... yes Are they each fitted with a Discharge Valve always accessible on the plating of the vessel... Valves ✓ Are the Blow Off ✓ fitted with a spigot and brass covering plate... None How are they protected... ✓

What pipes pass through the deep tanks... None 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... 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 Space W.T. Bulk in frame 25. Is it fitted with a watertight door... Yes worked from Platform connected as shown with

BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 11,354 sq ft
 Is Forced Draft fitted yes No. and Description of Boilers 2 B+W type Working Pressure 500 lb

Is a Report on Main Boilers now forwarded? no

Is a Donkey Boiler fitted? no If so, is a report now forwarded? 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? yes

State the principal additional spare gear supplied yes

The foregoing is a correct description,

Manufacturers

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 yes Rotors yes Blading yes Gearing yes

Wheel shaft yes Thrust shaft yes Intermediate shafts yes Tube shaft yes Screw shaft yes

Propeller yes Stern tube yes Engine and boiler seatings yes Engine holding down bolts yes

Completion of fitting sea connections yes Completion of pumping arrangements yes Boilers fixed yes Engines tried under steam yes

Main boiler safety valves adjusted yes Thickness of adjusting washers yes

Rotor shaft, Material and tensile strength yes Identification Mark yes

Flexible Pinion Shaft, Material and tensile strength yes Identification Mark yes

Pinion shaft, Material and tensile strength yes Identification Mark yes

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

Wheel shaft, Material yes Identification Mark yes Thrust shaft, Material yes Identification Mark SI.E 424-A

Intermediate shafts, Material yes Identification Marks 597 v. Tube shaft, Material yes Identification Marks yes

Screw shaft, Material yes Identification Marks 597 w. Steam Pipes, Material yes Test pressure yes

Date of test yes Is an installation fitted for burning oil fuel? yes

Is the flash point of the oil to be used over 150°F? yes 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? yes If so, have the requirements of the Rules been complied with? yes

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with? yes

Is this machinery a duplicate of a previous case? yes If so, state name of vessel T2 Tankers

General Remarks. (State quality of workmanship, opinions as to class, &c.) The Machinery of this vessel has been constructed under the survey of the U.S. Coastguard & American Bureau of Shipping.

Materials & workmanship appear good.

The scantlings & general arrangements have been checked & found in accordance with plans on board the vessel. Machinery opened up and examined, & afterwards under working conditions & found satisfactory.

Eligible in my opinion to have record of LMC 5-49 fitted for oil fuel (1945) FP above 150°F.

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

C. W. Reed

Engineer Surveyor to Lloyd's Register of Shipping.

LIVERPOOL 21 JUN 1949

Committee's Minute

Assigned See Machinery Report Minute



© 2020

Lloyd's Register Foundation