

AUXILIARY REPORT ON STEAM TURBINE MACHINERY.

No. 4249
22 SEP 1949

Port of writing Report 25 January 1949 When handed in at Local Office 19 Port of Boston, Massachusetts
 in Survey held at Fitchburg, Mass. Date, First Survey 30 November Last Survey 1 December 1948
 Reg. Book on the Chester, Pa. (Number of Visits 2)
 By whom built Sun Shipbuilding & Dry Dock Co. Yard No. 71563 When built 1948
 By whom made General Electric Co. Turbine No. 86343 When made 1948
 By whom made Gulf Oil Corporation Generator No. 6806211 Port belonging to Is Electric Light fitted
 Owners Gulf Oil Corporation
 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

STEAM TURBINE ENGINES, &c. — Description of Engines Geared Turbine Generator Set
 of Turbines One ~~Direct coupled~~ single reduction geared } to propelling shafts. No. of primary pinions to each set of reduction gearing 3
 Astern Direct Current Generator }
 Alternating Current Generator 3 phase 60 periods per second } rated 400 Kilowatts 440 Volts at 1200 revolutions per minute;
 supplying power for driving Auxiliary Machinery and Lighting
 Direct Current Generator 3 phase 60 periods per second }
 Kilowatts 400 Volts at 1200 revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

MANUFACTURER	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.
EXPANSION	.440"	19.342"	1									
"	.695"	17.597"	1									
"	1.110"	17.614"	1									
"	1.040"	18.372"	1									
"	1.420"	19.102"	1									
"	2.200"	20.230"	1									

ft Horse Power at each turbine { H.P. 10,059 1st reduction wheel
 I.P. 1200 main shaft
 L.P. 1200 main shaft

Shaft diameter at journals { H.P. 2.50"
 I.P. 3.4" 1st pinion
 L.P. 28.5" main wheel
 Pitch Circle Diameter { 1st pinion 3.4" 1st reduction wheel
 2nd pinion 28.5" main wheel
 Width of Face { 1st reduction wheel 8-1/4"
 main wheel 8-1/4"

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 6" 1st reduction wheel
 2nd pinion 6" main wheel

Pinion Shafts, diameter at bearings { External 1st 3" 2nd 3.1686"
 Internal 1st 3" 2nd 3.1686"
 Pinion Shafts, diameter at bearings { 1st 3.1686"
 2nd 3.1686"
 Generator Shaft, diameter at bearings 3"
 Propelling Motor Shaft, diameter at bearings 3"

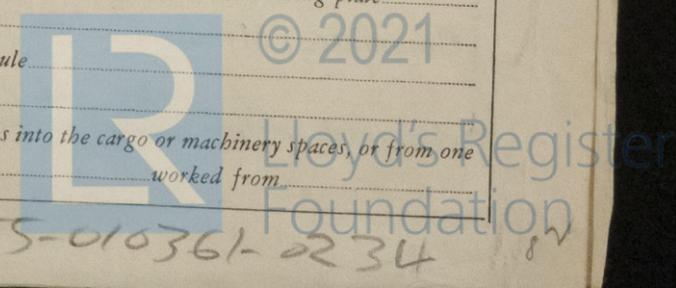
Intermediate Shafts, diameter as per rule 4"
 Thrust Shaft, diameter at collars as per rule 4-1/8"
 Tube Shaft, diameter as per rule 4-1/8"
 Tube Shaft, diameter as fitted 4-1/8"
 Bronze Liners, thickness in way of bushes as per rule 4-1/8"
 as fitted 4-1/8"

Thickness between bushes as per rule 4-1/8"
 as fitted 4-1/8"
 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 by fusion through the whole thickness of the liner Yes
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a material insoluble in water and non-corrosive Yes
 If two liners are fitted, is the shaft lapped or protected between the liners Yes
 Is an approved Oil Gland appliance fitted at the after end of the tube shaft Yes
 Length of Bearing in Stern Bush next to and supporting propeller 4-1/8"
 Is an approved Oil Gland appliance fitted at the after end of the tube shaft Yes

No. of Turbines fitted with astern wheels 1
 Feed Pumps { No. and size 1
 How driven Electric

Pumps connected to the Main Bilge Line { No. and size 1
 How driven Electric
 Lubricating Oil Pumps, including Spare Pump, No. and size 1
 Oil Cooler 1
 Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size 1

Water Circulating Pump Direct Bilge Suctions, No. and size 1
 Independent Power Pump Direct Suctions to the Engine Room 1
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes
 Sea Connections fitted direct on the skin of the ship 1
 Are they fitted with Valves or Cocks Yes
 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 line Yes
 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 covering plate Yes
 How are they protected By plating
 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



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