

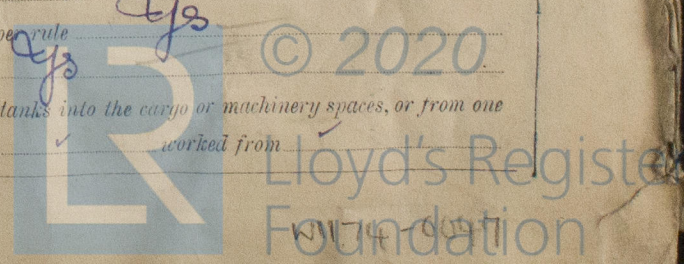
REPORT ON STEAM TURBINE MACHINERY. No. 8081

Date of writing Report 9th July 1941 When handed in at Local Office 9th July 1941 Port of Philadelphia
No. in Survey held at 6th Kingston Pa + Chester Pa Date, First Survey 16 Oct 1940 Last Survey 11 June 1941
Reg. Book. on the S/S STANVAC. MELBOURNE.
Built at Chester Pa By whom built Sim 813 & D D Co Yard No. 208 When built 1941
Engines made at Kingston Pa By whom made Westinghouse E.M.C Engine No. 1A9349 When made "
Boilers made at Barborton Ohio By whom made Babcock & Wilcox Co Boiler No. 1492.122 When made "
Shaft Horse Power at Full Power 4000 Owners Port belonging to
Nom. Horse Power as per Rule 1006 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Trade for which Vessel is intended Carrying Petroleum in bulk.

TEAM TURBINE ENGINES, &c.—Description of Engines Cross Compound Impulse, Reaction
No. of Turbines Ahead 2 Direct coupled, single reduction geared } to 1 propelling shafts. No. of primary pinions to each set of reduction gearing 2
Astern 1 double reduction geared }
direct coupled to { Alternating Current Generator phase periods per second } rated Kilowatts Volts at revolutions per minute;
for supplying power for driving Propelling Motors, Type
rated Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

TURBINE	HEIGHT OF BLADES.	H.P.			HEIGHT OF BLADES.	I.P.			HEIGHT OF BLADES.	L.P.			ASTERN.		
		DIAMETER AT TIP.	NO. OF ROWS.			DIAMETER AT TIP.	NO. OF ROWS.			DIAMETER AT TIP.	NO. OF ROWS.		HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION WHEEL	.64	21.14	1												
2ND 1ST BLADE RING	1.12	21.62	1						.91	27.87	6		.89	29.64	1
3RD UNIFORM TAPER	.75	14.034	6						2.97	32.00	6		1.69	30.44	1
4TH	.97	14.47	6												
5TH 2ND BLADE RING	1.035	14.894	12						3.85	33.75	5		1.92	31.42	1
6TH UNIFORM TAPER	2.03	16.62	12						8.97	34.00	5		3.09	32.89	1
7TH															
8TH															
9TH															
10TH															
11TH															
12TH															

Shaft Horse Power at each turbine { H.P. 2000 } 1st reduction wheel 540
L.P. 2000 } main shaft 85
Revolutions per minute, at full power, of each Turbine Shaft { H.P. 1980 }
L.P. 4440 }
Rotor Shaft diameter at journals { H.P. 4" } Pitch Circle Diameter { 1st pinion 10.884 } 1st reduction wheel 89.710
L.P. 6 1/4" } 2nd pinion 17.694 } main wheel 112.287 Width of Face { 1st reduction wheel 13'
2nd 17.131' } main wheel 30'
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 13.125' } 1st reduction wheel 13.125'
2nd pinion 33.75' } main wheel 33.75'
Flexible Pinion Shafts, diameter { 1st 3 3/4" } Pinion Shafts, diameter at bearings External 1st 4 1/2" 2nd 12.5' diameter at bottom of pinion teeth { 1st 16.606"
2nd 17.131' } Internal 1st 8 1/4" 2nd 10.8"
Wheel Shafts, diameter at bearings { 1st 12 1/2" } diameter at wheel shroud, { 1st 108" } Generator Shaft, diameter at bearings
main 19" } main 108" } Propelling Motor Shaft, diameter at bearings
Intermediate Shafts, diameter as per rule 14 1/4" Thrust Shaft, diameter at collars as per rule 14 1/4" Tube Shaft, diameter as per rule 14 1/4"
as fitted 15" } as fitted 14 1/4" } as fitted 14 1/4" }
Screw Shaft, diameter as per rule 16.29" Is the screw shaft fitted with a continuous liner Yes Bronze Liners, thickness in way of bushes as per rule 1 1/32"
as fitted 17" } 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
Thickness between bushes as per rule 5 3/16" } 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 Length of Bearing in Stern Bush next to and supporting propeller 74 1/4"
Propeller, diameter 18'-6" Pitch 16'-6" No. of Blades 4 State whether Moveable No Total Developed Surface 125.3 square feet.
If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Yes Can the H.P. or I.P. Turbine exhaust direct to the
Condenser Yes No. of Turbines fitted with astern wheels 1 Feed Pumps { No. and size 3 - 110 GPM }
How driven Steam turbine
Pumps connected to the Main Bilge Line { No. and size 1 - 400 GPM. } 1. 400 GPM } 1. 170 GPM } 1 - 7 1/2 x 7 x 10"
How driven Motor STEAM TURBINE. motor STEAM. in FWD. PUMP ROOM
Ballast Pumps, No. and size 2 - 400 GPM 1. 10 x 7 x 10 Lubricating Oil Pumps, including Spare Pump, No. and size 2 - 200 GPM motor driven
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size: In Engine and Boiler Room 3 - 3 1/2 ENG ROOM BILGE 2. 2" motor well. 1. 2" CONDENSATE PUMP 3 - 3 1/2 Cofferdams
In Holds, &c. 2. 2 1/2 Fwd pump room. 2 - 2 1/2 dry stores fwd. 1. 2 1/2 chain locker. 2. 2 1/2 bottom stores
Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 - 14" Independent Power Pump Direct Suctions to the Engine Room
Bilges, No. and size 1 - 5" 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 and-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
Are all Sea Connections fitted direct on the skin of the ship Yes 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 line below
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 Take
What pipes pass through the bunkers How are they protected Yes
What pipes pass through the deep tanks Bilge pipes to chain locker, bottom stores & dry stores pass through 36" tunnel Have they been tested as per rule Yes
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 worked from



BOILERS, &c. - (Letter for record S) Total Heating Surface of Boilers 9008 sq. ft.
Is Forced Draft fitted? Yes No. and Description of Boilers 2 Water tube B&W Working Pressure 475 lb
Is a Report on Main Boilers now forwarded? Yes
Is a Donkey Boiler fitted? None If so, is a report now forwarded?
Plans. Are approved plans forwarded herewith for Shafting 18 Nov 1940 Main Boilers 6 Oct 1940 Auxiliary Boilers
(If not state date of approval)
Superheaters 6 Oct 1940 General Pumping Arrangements April 1941 Oil Fuel Burning Arrangements 21 May 1941
Spare Gear. State the articles supplied: - As per rule.

The foregoing is a correct description, Westinghouse E. & W. Co. J. H. Brown Manufacturer

Dates of Survey while building
(During progress of work in shops - - -) 6 Oct 16 Nov 12 Dec 12 16 1940 Jan 28 Feb 6 7 March 3 7 14 April 4 16 19 21 1941
(During erection on board vessel - - -) March 10 15 17 21 27 April 18 19 22 May 9 16 June 4 7 9 10 11 1941
Total No. of visits 30.

Dates of Examination of principal parts - Casings 21 April Rotors 21 April Blading 21 April Gearing 21 April
Wheel shaft 21 April Thrust shaft 21 April Intermediate shafts March 24 Tube shaft - Screw shaft March 24
Propeller March 24 Stern tube March 21 Engine and boiler seatings 10 March Engine holding down bolts 9 May
Completion of pumping arrangements 9 June Boilers fixed 22 April Engines tried under steam 10 June
Main boiler safety valves adjusted 4 June Thickness of adjusting washers Locknuts
Rotor shaft, Material and tensile strength OH Steel HP 80250 85000 LP 90500 92500 Identification Mark 3716 WJF. 665 JKH.
Flexible Pinion Shaft, Material and tensile strength Identification Mark
Pinion shaft, Material and tensile strength OH Steel HP 107000 103500 LP 103000 100000 Identification Mark 1453. 1414 EW.
1st Reduction Wheel Shaft, Material and tensile strength OH Steel HP 108500 107000 LP 108500 108100 Identification Mark 4207 WMR 7004 JKH.
Wheel shaft, Material OH Steel Identification Mark 6735 JBC Thrust shaft, Material OH Steel Identification Mark WR.
Intermediate shafts, Material OH Steel Identification Marks 7171 JKH Tube shaft, Material - Identification Marks
Screw shaft, Material OH Steel Identification Marks 7172 JKH 7171 JKH 7172 JKH 7171 JKH 7172 JKH 7171 JKH 7172 JKH
Date of test 18 April 1941 Steam Pipes, Material Steel Test pressure 1600 lb

Is the flash point of the oil to be used over 150°F. Yes Is an installation fitted for burning oil fuel. Yes
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. Have the requirements of the Rules for the use of oil as fuel been complied with. Yes
Is this machinery a duplicate of a previous case. No If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been constructed under special survey and in accordance with the approved plans, the material & workmanship are good. The installation has been satisfactorily installed on board the vessel, tried out under full power & found satisfactory, and in my opinion eligible to receive the record of +LMC 6.41.

The amount of Entry Fee \$30.00
When applied for, 12 July 1941
Donkey Boiler Fee \$15.00
When received, 19
Travelling Expenses (if any) £

Committee's Minute NEW YORK AUG 13 1941

Assigned +LMC-6-41.



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