

## REPORT ON STEAM TURBINE MACHINERY. No. 6695

Date of writing Report 19 When handed in at Local Office 10

Port of SAN FRANCISCO, CAL.

No. in Survey held at BOSTON, MASS & SAN FRANCISCO Date, First Survey 4<sup>th</sup> July Last Survey 3<sup>rd</sup> June 1932  
Reg. Book. 41281 on the Tw. Sc. S. S. MONTEREY (Number of Visits 10)Built at Quincy, Mass. By whom built Bethlehem S. B. Corp. Yard No. 1441 When built 1932  
Engines made at d<sup>o</sup> By whom made d<sup>o</sup> Engine No. 1441 When made 1932  
Boilers made at Bayonne N. J. By whom made Babcock & Wilcox Co. Boiler No. When made 1932  
Shaft Horse Power at Full Power 22000 Owners Oceanic S. S. Co. Port belonging to SAN FRANCISCO  
Nom. Horse Power as per Rule 5363 Is Refrigerating Machinery fitted for cargo purposes YES Is Electric Light fitted YES  
Trade for which Vessel is intended AUSTRALIAN

## STEAM TURBINE ENGINES, &amp;c.—Description of Engines. PARSONS TYPE. GEARED SINGLE REDUCTION

No. of Turbines Ahead 6 Direct coupled, single reduction geared } to 2 propelling shafts. No. of primary pinions to each set of reduction gearing 3  
Astern 2 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 BLADING.	ONE IMPULSE WHEEL	H. P.			I. P.			L. P.			ASTERN. IMPULSE		
		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 1/2	52" PD	2	1 7/8	3-1 3/4	6	2 1/2	4-2"	4	1 1/2-2 1/2-3 1/2	60" PD	3
2ND		1 5/8	2-6 3/4	10	2 3/4	3-2 3/8	6	3 5/8	4-3 3/4	4	5+7"		2
3RD		1 7/8	2-6 3/4	10	2 3/4	3-3 1/2	6	3 7/8	4-4 3/4	4			
4TH		2 1/4	2-7 1/2	10	3 1/6	3-4 1/8	6	4 3/4	4-6 1/2	4			
5TH		"	"	10	4	3-6	6	5 1/8	4-8 3/4	4			
6TH					5 1/8	3-8 1/4	5	7 1/4	4-11 1/2	4			
7TH					6	3-10	5	9	5-3	4			
8TH								10	5-5	2			
9TH								:	5-5	2			
10TH								:	5-5	2			
1TH													
2TH													

Shaft Horse Power at each turbine { H.P. 3666 I.P. 3666 L.P. 3666 } Revolutions per minute, at full power, of each Turbine Shaft { H.P. 1500 I.P. 1500 L.P. 1500 } 1st reduction wheel } 118  
main shaft }Rotor Shaft diameter at journals { H.P. 8" I.P. 8" L.P. 9" } Pitch Circle Diameter { 1st pinion 12 1/4" 1st reduction wheel } Width of Face { 1st reduction wheel }  
2nd pinion main wheel 156" main wheel 56"Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 19 1/4" + 21" 1st reduction wheel }  
2nd pinion main wheel 7'-5"

Flexible Pinion Shafts, diameter { 1st NONE 2nd } Pinion Shafts, diameter at bearings { External 1st 8" 2nd } diameter at bottom of pinion teeth { 1st 11 1/4" 2nd }

Wheel Shafts, diameter at bearings { 1st 21" 2nd } diameter at wheel shroud, { 1st 2'-0 1/2" 2nd } Generator Shaft, diameter at bearings. -  
main 2'-0 1/2" Propelling Motor Shaft, diameter at bearings. -Intermediate Shafts, diameter as per rule 17.3 Thrust Shaft, diameter at collars as per rule 18.2 Tube Shaft, diameter as per rule 18.2  
as fitted 18" with 5" bore as fitted 21" as fittedScrew Shaft, diameter as per rule 18.8 Is the shaft fitted with a continuous liner YES Bronze Liners, thickness in way of bushes as per rule 1 1/4"  
as fitted 20 1/2" OD as fitted 5" Bore

Thickness between bushes as per rule 7/8 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

made 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 plastic 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

other appliance fitted at the after end of the tube shaft NO Length of Bearing in Stern Bush next to and supporting propeller 14'-0"

Propeller, diameter 18'-0" Pitch 19'-6" No. of Blades 3 State whether Moveable NO Total Developed Surface 105.8 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. Turbine exhaust direct to the

Condenser No. of Turbines fitted with astern wheels 2 Feed Pumps No. and size 2-550 GPM 2-100 GPM 2-12"x8"x18" 2 INJECTORS 2 1/2"  
How driven STEAM TURBINES

Pumps connected to the Main Bilge Line { No. and size 3-700 GPM 2-8"x10"x24" } How driven ELEC MOTORS

Ballast Pumps, No. and size 1-700 GPM + 1-8"x10"x24" Lubricating Oil Pumps, including Spare Pump, No. and size 4-300 GPM

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 6'-4"/6'-3"/1'-5"/2'-6"

In Holds, &amp;c. 2-3" IN EACH HOLD

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2-12" Independent Power Pump Direct Suctions to the Engine Room

Bilges, No. and size 1'-5"/2'-6" 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 mud-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 YES

What pipes pass through the bunkers NONE How are they protected YES

What pipes pass through the deep tanks NONE 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 YES Is it fitted with a watertight door YES worked from ABOVE DECK

27 JUN 1932

BOILERS, &c.—(Letter for record ) Total Heating Surface of Boilers 53520 #  
Is Forced Draft fitted YES No. and Description of Boilers 12 Balcok + Wilcox Working Pressure 400 lbs  
Is a Report on Main Boilers now forwarded? YES  
Is { a Donkey } Boiler fitted? No If so, is a report now forwarded? ☒  
Plans. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers  
(If not state date of approval) APPROVED PLANS FORWARDED WITH S/S MARIPOSA SAN FRANCISCO RPT 66 4/12  
Superheaters General Pumping Arrangements Oil Fuel Burning Arrangements  
Spare Gear. State the articles supplied:— SPARE GEAR SUPPLIED AS PER RULES REQUIREMENTS

BETHLEHEM S. B. CORPORATION

S. H. Mahan

The foregoing is a correct description,

Dates of Survey while building { During progress of work in shops -- } 1932 FEB 4 APRIL 7, 8, 20, 21, 22, 27 MAY 29-31 JUNE 3.  
{ During erection on board vessel --- }  
Total No. of visits

Dates of Examination of principal parts—Casings Rotors Blading Gearing 27 APR  
Wheel shaft Thrust shaft Intermediate shafts APR 7 Tube shaft Screw shaft  
Propeller APRIL 7 Stern tube APRIL 7 Engine and boiler seatings APRIL 7 Engine holding down bolts APR 7  
Completion of pumping arrangements APRIL 7 Boilers fixed APRIL 7 Engines tried under steam APR 21  
Main boiler safety valves adjusted Thickness of adjusting washers  
Rotor shaft, Material and tensile strength STEEL 60000 LBS Identification Mark  
Flexible Pinion Shaft, Material and tensile strength Identification Mark  
Pinion shaft, Material and tensile strength STEEL 75000 LBS Identification Mark  
1st Reduction Wheel Shaft, Material and tensile strength Identification Mark  
Wheel shaft, Material STEEL Identification Mark Thrust shaft, Material STEEL Identification Mark  
Intermediate shafts, Material " Identification Marks Tube shaft, Material Identification Marks  
Screw shaft, Material " Identification Marks Steam Pipes, Material STEEL Test pressure 600 LBS  
Date of test 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 No If so, have the requirements of the Rules been complied with ☒  
Is this machinery a duplicate of a previous case YES If so, state name of vessel MARIPOSA SAN FRANCISCO RPT 66

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has not been built under Special Survey but it has been examined under working conditions & as opportunity allowed, & the workmanship & material are good. The forgings & castings, the boilers & steam piping have been tested by American Bureau of Shipping & U. S. Govt Steamboat Inspectors. In our opinion, the machinery of this vessel is now in good & safe working condition & eligible to receive the notation LMC and FD 'Fitted for Oil Fuel 5.32 FP above 150°F', subject to annual survey of the water tube boilers

The amount of Entry Fee ... : When applied for, :  
Special ... : charged on : 19. ✓  
Donkey Boiler Fee ... : Hull report :  
Travelling Expenses (if any) ... : 19. ✓

J. French John S. He...  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK JUN 15 1932

Assigned

LMC 4-32

CERTIFICATE WRITTEN



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