



It is submitted that  
this vessel is eligible for  
THE RECORD. LMC 5. 21 F.D. CL.

S 5. 21. "220" 1/16 (S) 588 NH.  
Q. 4 Cy 24. 34 1/16, 50 3/8, & 74. - 53 3/16.

3 SB. 9 cf. G5 199. HS 8634.  
subject to the main boiler furnace being room  
before the end of *JWD*  
December 1921.  
See Off. No. 21/6/21  
16/6/21

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*[Faint handwritten notes and bleed-through from the reverse side of the page are visible across the main body of the document.]*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.



*[Handwritten notes and text from the reverse side of the page, including 'Wine', 'Sh', 'Port', and 'Rpt.', are visible at the bottom edge.]*

- S.S. "Manoa" -

II

Examination made of all cylinders, pistons, slide valves, pumps, the condenser, crank, thrust and tunnel shafting; sea cocks and valves, bilge and other suction; distribution valves; dynamos; valve gear; evaporator; auxiliaries and other working parts of engine.

Repairs etc now done:-

HP cylinder liner drawn, a new liner fitted; new piston, with Lockwood & Carlisle rings, fitted complete; piston rod skimmed up, new neck and gland bushes fitted; new metallic packing fitted. New piston ring fitted to the 1<sup>st</sup> M. P. piston. All pistons, piston valves and slide valves overhauled and adjusted.

Shafting. crank shaft lifted, new metal fitted in main bearing brasses; and HP bottom end; shaft re-bedded. Thrust shaft bearings re-metalled. Tunnel shafting un-coupled, the whole of the shafting re-aligned and coupled up. New worm wheel fitted to turning gear. Holding down bolts to bedplate overhauled.

Pumps etc - The feed pump ram skimmed up, new neck and gland bushes; the ram fitted with new brass bush, new neck & gland bushes. Bilge pump rams skimmed up, new neck and gland bushes. New delivery valve & seat to after feed pump. Two new cast iron bilge pump chambers fitted. Centrifugal pump overhauled, cylinder bored out & new piston fitted. New valve box & valves fitted to water end of Weir's feed pump. All auxiliaries overhauled, adjusted and tested. Condenser tested. Evaporator coils tested after annealing; evaporator tested under steam. A new Downton Pump fitted in Eng. room, connected up to Bilge suction. Downton (2) pumps tested.

Dynamos overhauled, the cylinder of Forward dynamo bored out, new piston fitted. Electric wiring etc overhauled and repaired as necessary.

Windlass exam'd & overhauled, new brackets for crank shaft fitted. Steering engine exam'd & overhauled.

J. H. H. H.

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2/4

S.S. "Manoa"

III

- Boilers.

Examination made of the 3 main boilers over all parts, found in good condition, with the exception of the furnaces, which were all found to be more or less distorted; these have now been set up, and the boilers tested to 300 lb per sq. in. W.P., furnaces gauged before pressure, when pressure was on, and after the pressure was off, and the furnaces were found to have altered very little. The Board of Trade Surveyors examined the boilers, and witnessed the tests, and owing to the furnaces having been distorted, they will only allow a working pressure of 180 lb. Boilers tight under both water & steam pressures.

Safety valves and mountings examined & overhauled. Several of the smaller valves renewed.

Main steam pipes (steel) tested to 600 lb per sq. in. W.P. New copper feed pipes and brass connections (Tee & cross pieces) fitted, in lieu of the steel ones; same tested.

Safety valves adjusted under steam to 180 lb per sq. in. Engines tried under steam & found to work satisfactorily.

This survey has been carried out in conjunction with the Board of Trade Surveyors, who have put the furnaces of main boilers on a six months limit.

The particulars required for 1<sup>st</sup> Entry Report, New York, are as follows.

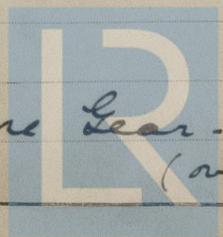
Dia of screw shaft. 15 3/8" ✓ Stroke of Feed Pump 15" ✓

N<sup>o</sup> & Sizes of hold sections. 9 - 3 1/2" dia. (2 to h<sup>o</sup> 1, 2 to h<sup>o</sup> 2, 2 to h<sup>o</sup> 3 (aft of 2<sup>nd</sup> room) 2 to h<sup>o</sup> 4, and 1 to after well). ✓

A Pumping plan is forwarded. ✓

J. Hunter.

Spare Gear.



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3/4

S.S. "Mauro"IVSpare Gear (on board).

- 2 Top end bolts and nuts.  
 2 Bottom end bolts and nuts.  
 2 Main bearing bolts & nuts.  
 1 Set coupling bolts.  
 1 Set of feed and bilge pump valves.  
 1 Set of piston springs for 3 engines.  
 A quantity of assorted bolts, nuts and iron of  
 assorted iron.  
 1 Valve spindle (interchangeable).  
 2 Crosshead brasses. 1 Set of crank pin brasses.  
 1 Impeller for circulating pump. 2 pairs valve spindle guide  
 brasses. 1 Air pump rod. 1 Set of check valves.  
 55 boiler tubes. 30 Tube stoppers. 2 Safety valve springs.  
 1 Cyl. cover, 1 piston rod & 1 valve spindle for 3 engines.  
 1 Propeller blade. 1 Propeller boss. 1 Pro. nut.  
 9 Junk ring bolts. 12 Condenser tubes.  
 6 propeller studs and nuts: and a quantity of  
 smaller gear.

The Boiler plan is herewith returned and Pumping  
 Plan enclosed.

J. S. Hunter.



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0254 4/4