

# REPORT ON MACHINERY.

Received at London Office

Date of writing Report June 21<sup>st</sup> 1919 When handed in at Local Office June 21<sup>st</sup> 1919 Port of Seattle Wash  
 No. in Survey held at Seattle Wash Date, First Survey Feb 8<sup>th</sup> 1918 Last Survey June 14<sup>th</sup> 1919  
 Reg. Book. 5-111  
 on the Single Screw Steamship "OLEANDER", (Number of Visits 36) Gross Tons 2385.17  
 Master Ed Lucas Built at Seattle, W. By whom built Anderson Shipbldg. Co. Net Tons 1426.98 When built 1919

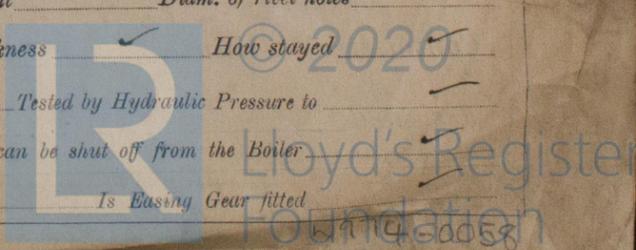
Engines made at Seattle, W. By whom made Marine Pipe & Machine Wks when made 1918  
 Boilers made at Seattle, W. By whom made Puget Sound Boiler Wks when made 1918  
 Indicated Horse Power 1200 Owners Oriental Navigation Co Port belonging to New York  
 Net Horse Power as per Section 28 208.00 Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

DETAILS OF ENGINES, &c.—Description of Engines Inverted Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Diameter of Cylinders 18" 29" 48" Length of Stroke 30" Revs. per minute 120 Dia. of Screw shaft 9.99 Material of screw shaft Steel  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight Yes  
 Is the propeller boss Yes If the liner is in more than one length are the joints burned 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, Marine-Red Lead Paint Length of stern bush 3'-3 1/2"  
 Dia. of Tunnel shaft 9" Dia. of Crank shaft journals 9.43 Dia. of Crank pin 9 1/2" Size of Crank webs 6 3/4" x 33" Dia. of thrust shaft under pins 9 1/2" Dia. of screw 1 1/6" Pitch of Screw 10'-6" No. of Blades 4 State whether moveable Yes Total surface 45 sq ft  
 Diameter of Feed pumps 2 1/2" Diameter of ditto 10' x 6" Stroke 12" Can one be overhauled while the other is at work Yes  
 Diameter of Bilge pumps 2 1/2" Diameter of ditto 10' x 8" Stroke 12" Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 3 Sizes of Pumps 10' x 6" x 10" - 16' x 8" x 18" x 20" No. and size of Suctions connected to both Bilge and Donkey pumps in Engine Room 3 @ 3 1/2" 5' x 5' x 6" In Holds, &c. 2 @ 3 1/2" + 2 @ 3"

Bilge Injections 1 sizes 7" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 4 1/2"  
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes  
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both Valves & Cocks  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line above  
 Are they each fitted with a Discharge Valve always accessible on the ceiling of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate No  
 Are pipes carried through the bunkers Bilge Ducken & Sintering How are they protected Wood & Iron Sheathing  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes  
 Is Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Engine Room  
 Manufacturers of Steel Bethlehem Steel Co., Pa.

Heating Surface of Boilers 4044 Is Forced Draft fitted No No. and Description of Boilers 2 Scott Water Tube  
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test June 27<sup>th</sup> 1918 No. of Certificate 1  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 52 sq feet No. and Description of Safety Valves to each boiler 1-2 1/2" Pat. Duplex Area of each valve 4.9 sq" Pressure to which they are adjusted 200 lbs Are they fitted with easing gear Yes  
 Least distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 36 1/2" Length 9'-2" Material of shell plates Steel  
 Thickness of shell plates 1/2" Range of tensile strength 60,000 lbs Are the shell plates welded or flanged Flanged Descrip. of riveting: cir. seams Single  
 Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 3/4" Lap of plates or width of butt straps 10 9/16"  
 Percentage of strength of longitudinal joint 100% Working pressure of shell by rules 252.7 Size of manhole in shell at End 15 x 11

Are compensating rings fitted None No. and Description of Furnaces in each boiler open Material Steel Outside diameter 36 1/2"  
 Thickness of plates 15/16" Description of longitudinal joint Single No. of strengthening rings 1  
 Working pressure of furnace by the rules 252.7 Combustion chamber plates: Material Steel Thickness: Sides 15/16" Back 15/16" Top 15/16" Bottom 15/16"  
 Working pressure of stays to ditto: Sides 252.7 Back 252.7 Top 252.7 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 252.7  
 Area of stays 15 x 11 Area at smallest part 15 x 11 Area supported by each stay 15 x 11 Working pressure by rules 252.7 End plates in steam space: Material Steel Thickness 15/16" Pitch of stays 15/16" How are stays secured By nuts Working pressure by rules 252.7 Material of stays Steel  
 Area at smallest part 15 x 11 Area supported by each stay 15 x 11 Working pressure by rules 252.7 Material of End plates at bottom Steel  
 Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 15/16" Working pressure of plate by rules 252.7  
 Pitch of tubes 15/16" Material of tube plates Steel Thickness: Front 15/16" Back 15/16" Mean pitch of stays 15/16"  
 Working pressures by rules 252.7 Girders to Chamber tops: Material Steel Depth and width of girder at centre 15 x 11 Length as per rule 15 Distance apart 15 Number and pitch of stays in each 15 x 11  
 Working pressure by rules 252.7 Steam dome: description of joint to shell Single % of strength of joint 100%  
 Diameter of shell plates 15/16" Material Steel Description of longitudinal joint Single Diam. of rivet holes 15/16"  
 Pitch of rivets 15/16" Working pressure of shell by rules 252.7 Crown plates 15/16" Thickness 15/16" How stayed By nuts  
 SUPERHEATER. Type Open Date of Approval of Plan June 27<sup>th</sup> 1918 Tested by Hydraulic Pressure to 400 lbs  
 Date of Test June 27<sup>th</sup> 1918 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes  
 Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 252.7 Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 Connecting Rod Top End Bolts & Nuts  
2 Connecting Rod Bottom End Bolts & Nuts, 2 Main Bearing Bolts & Nuts  
1 Set of Coupling Bolts & Nuts, 1 Set of Feed & Bilge Pump Valve  
1 Set of Piston Rings, Six Carbonizer Tubes, 20 Carbonizer Screws  
2 Propeller Blasts, Iron of various sizes, Assorted Bolts & Nuts

The foregoing is a correct description,

ANDERSON SHIPBUILDING CORPORATION

Per *W. Hall* Secy.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- Feb 8<sup>1918</sup>, 14, 25, March 9<sup>1918</sup>, 20, 29, April 18, 19, 27, May 21<sup>1918</sup>, 23<sup>1918</sup>, 27<sup>1918</sup>.  
During erection on board vessel --- June 4<sup>1918</sup>, 14<sup>1918</sup>, 19<sup>1918</sup>, 27<sup>1918</sup>, July 5, 19, Aug 8, 10, 16, 19, Sept 5, 26, Oct 2, 12, Dec 18, 1918, Jan 11, 1919.  
Total No. of visits: March 19, Apr 10, 22, May 28, June 4<sup>1918</sup>, 14<sup>1918</sup>. 36

Dates of Examination of principal parts: Cylinders Feb 25, Slides Feb 25, Covers Feb 25, Pistons March 20, Rods March 20, Connecting rods March 20, Crank shaft March 29, Thrust shaft Aug 19, Tunnel shafts Aug 19, Screw shaft Aug 19, Propeller Sept 22, Stern tube Aug 19, Steam pipes tested March 19-19, Engine and boiler seatings July 5-18, Engines holding down bolts July 19, Completion of pumping arrangements Sept 5<sup>1918</sup>, Boilers fixed Dec 16<sup>1918</sup>, Engines tried under steam April 22<sup>1919</sup>, Completion of fitting sea connections Sept 5<sup>1918</sup>, Stern tube Sept 22<sup>1918</sup>, Screw shaft and propeller Sept 22<sup>1918</sup>, Main boiler safety valves adjusted April 22<sup>1919</sup>, Thickness of adjusting washers Pat. Decree Dm Lock nat 1919

Material of Crank shaft: A Steel Identification Mark on Do. 21-9-18 LN. Material of Thrust shaft: A Steel Identification Mark on Do. 26-8-18 LN. Material of Tunnel shafts: A Steel Identification Marks on Do. 30-8-18 LN. Material of Screw shafts: A Steel Identification Marks on Do. 30-8-18 LN. Material of Steam Pipes: Steel Test pressure 600 lbs sq. in.

Is an installation fitted for burning oil fuel? No. Is the flash point of the oil to be used over 150° F.  Have the requirements of Section 49 of the Rules been complied with?  Is this machinery duplicate of a previous case? No. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c.) The Engine & Boilers have been built under special survey & installed on Board together with Auxiliaries, fittings, Sea Connections, Stern Tube, Shafting & all necessary piping in due accordance with the approved plans. Upon completion the machinery tried at sea under full working conditions & found satisfactory.

The machinery is eligible in my opinion to be classed & have the notation of  $\nabla$  LMC 6.19 not in the Register Book in the case of this vessel.

It is submitted that this vessel is eligible for THE RECORD, + LMC. 6.19 subject to the Watertube Boilers being surveyed annually. R.M. 12/8/19

The amount of Entry Fee ... \$10.00 : When applied for, July 3<sup>rd</sup> 1919. Special ... \$152.00 : When received, 15/7/19. Donkey Boiler Fee ... : Travelling Expenses (if any) £ 10.00 : 7/10/19

Committee's Minute New York JUL 1 5 1919 Assigned + LMC. 6.19

L. W. Norton & Co. Master Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute Assigned + LMC. 6.19

Machinery Entered 10.9.19

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