

REC'D NEW YORK Jan. 24-1918

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# REPORT ON MACHINERY.

No. 2641

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Writing Report Jan 14<sup>th</sup> 1918 When handed in at Local Office 19 Port of San Francisco  
in Survey held at San Francisco Date, First Survey June 19<sup>th</sup> 1917 Last Survey Jan 18<sup>th</sup> 1918  
Book. on the S.S. E. O'Neil Bethlehem Shipbuilding Corp U. Pt. Hull No 143 (Number of Visits 1)  
Gross Tons 7150.14  
Net Tons 5394.0  
Builder G. Holmes Built at Alameda, Cal. By whom built Bethlehem S. B. Corp U. Pt. When built 1918  
Machines made at Schenectady N.Y. By whom made General Electric Company when made 1918  
Engines made at San Francisco By whom made Bethlehem S. B. Corp U. Pt. when made 1918  
Registered Horse Power 2600 Owners Atlantic Refining Co Port belonging to Philadelphia Pa.  
Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

STEAM ENGINES, &c.—Description of Engines Burtis Turbines No. of Turbines 1  
Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft L.P.  
Diameter of Journals L.P. Distance between Centres of Bearings L.P. Diameter of Pitch Circle L.P.  
Diameter of Wheel Shaft L.P. Distance between Centres of Bearings L.P. Diameter of Pitch Circle of Wheel L.P.  
Diameter of Face L.P. Diameter of Thrust Shaft under Collars L.P. Diameter of Tunnel Shaft L.P.  
Diameter of Screw Shafts One Diameter of same as per rule 14.03 as fitted 15 Diameter of Propeller 17.0 Pitch of Propeller 18.6  
Diameter of Rotor Drum, H.P. L.P. as per rule 12.64 as fitted 12.64  
Diameter of Blades 4 State whether Moveable Yes Total Surface 85 Diameter of Rotor Drum, H.P. L.P. as per rule 12.64 as fitted 12.64  
Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 3374.5 Propeller 90

## DETAILS OF BLADING.

	H.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.
EXPANSION									

and size of Feed pumps 2-12"x7"x16"  
and size of Bilge pumps 1-16"x10"x14" - 2-7"x6"x10" - 1-6"x5 1/4"x6"  
and size of Bilge suction in Engine Room and boiler room 4-3 1/2"  
In Holds, &c. Forepeak 1-3 1/2" Forepeak transverse deck 2-2"  
in locker 1-2" Forepeak 2-3 1/2" Forepeak transverse deck 2-2" after peak 1-3 1/2"  
of Bilge Injections 1 sizes 12" Connected to condenser, or to circulating pump Calculated separate Donkey Suction fitted in Engine Room & size yes 3 1/2"  
all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes  
all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves  
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  
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  
if pipes are carried through the bunkers Yes How are they protected Yes  
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes  
the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from Yes

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Wool Bros Philadelphia Pa.  
Heating Surface of Boilers 9750 Forced Draft fitted No No. and Description of Boilers 3. Simple Horizontal Water Tube  
Working Pressure 250 lbs Tested by hydraulic pressure to 500 lbs Date of test 28-8-17 29-8-17 No. of Certificate 95-96-97  
each boiler be worked separately Yes Area of fire grate in each boiler - No. and Description of Safety Valves to -  
boiler 2 Spring Loaded Area of each valve 7.06 sq" Pressure to which they are adjusted 225 lbs Are they fitted with easing gear Yes  
least distance between boilers or uptakes and bunkers or woodwork - Mean dia. of tubes 54 1/8" Length 127 1/2" Material of shell plates Steel  
thickness 7/8" Range of tensile strength 60000 Are the shell plates welded or flanged No Description of riveting: cir. seams Single  
seams T.B.D.B.S. Diameter of rivet holes in long. seams 1" 1/16" Pitch of rivets 7 1/4" Lap of plates or width of butt straps 16 1/4"  
rivets 120% Working pressure of shell by rules 267 lbs Size of manhole in shell 12 x 16"  
contages of strength of longitudinal joint plates 97% Material - Outside diameter -  
of compensating ring Flanged No. and Description of Furnaces in each Boiler - Material - Outside diameter -  
top - crown - Description of longitudinal joint - No. of strengthening rings -  
bottom - bottom - Thickness of plates - Thickness: Front 3/4" Back 3/4" Top 5/8" Bottom 5/8"  
working pressure of furnace by the rules - If stays are fitted with nuts or riveted heads Pinned Working pressure by rules 340  
th of stays to distor 6"x6" Back 6"x6" Top 6"x6" Area supported by each stay 42.25" Working pressure by rules 440 End plates in steam space -  
erial of stays Steel Diameter at smallest part 2.07" How are stays secured - Working pressure by rules - Material of stays -  
erial - Thickness - Pitch of stays - Working pressure by rules - Material of Front plates at bottom -  
meter at smallest part - Area supported by each stay - Working pressure by rules - Working pressure of plate by rules -  
ckness - Material of Lower back plate - Thickness - Greatest pitch of stays - Working pressure of plate by rules -  
meter of tubes 3" Pitch of tubes 6"x6" Material of tube plates - Thickness: Front - Back - Mean pitch of stays -  
h across wide water spaces - Working pressures by rules - Girders to Chamber tops: Material - Depth and -  
ckness of girder at centre - Length as per rule - Distance apart - Number and pitch of stays in each -  
working pressure by rules - Steam dome: description of joint to shell - % of strength of joint - Diameter -  
ckness of shell plates - Material - Description of longitudinal joint - Diameter of rivet holes - Pitch of rivets -  
working pressure of shell by rules - Crown plates: Thickness - How stayed -

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IS A DONKEY BOILER FITTED? NO ✓ If so, is a report now forwarded? ✓

The foregoing is a correct description,

Dates of Examination of principal parts—Casings Rotors Blading Gearing

Rotor shaft Thrust shaft Oct 15 Tunnel shafts — Screw shaft Aug 30 Propeller Aug 20

Stern tube Aug 30 Steam pipes tested Dec 1 Engine and boiler seatings Sept 11 Engines holding down bolts Nov 6

Completion of pumping arrangements Dec 18 Boilers fired Oct 18 Engines tried under steam Dec 25

Main boiler safety valves adjusted Jan 10 1918 Thickness of adjusting washers Locknuts

Material and tensile strength of Rotor shaft Identification Mark on Do.

Material and tensile strength of Pinion shaft Identification Mark on Do.

Material of Wheel shaft — Identification Mark on Do. — Material of Thrust shaft Steel Identification Mark on Do.

Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts Steel Identification Marks on Do.

Material of Steam Pipes Steel Test pressure 750 lb.

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 Section 49 of the Rules 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.) The machinery and Boilers of the vessel were constructed under Special Survey of materials tested to Rule Requirements, and workmanship was found <sup>sound</sup> thorough. On completion the machinery was thoroughly tested under working conditions with satisfactory results. In the opinion of the undersigned the machinery is eligible to be classed in the Register Book. + L.M.C 1-18 Fitted for Oil Fuel 1-18 F.P. above 150°F. Electric light

{ Number on Turbine Casing 12407 } { Number on Gear Casing 2542. }

The amount of Entry Fee	...	\$15 <sup>75</sup> / <sub>100</sub>	When applied for,
Special	...	\$208 <sup>50</sup> / <sub>100</sub>	Jan. 19, 1918
Donkey Boiler Fee	...	\$10 <sup>00</sup> / <sub>100</sub>	When received,
NY Travelling Expenses (if any)	...	\$20 <sup>50</sup> / <sub>100</sub>	28/8/18
S.F. " "	...	2.40 <sup>00</sup> / <sub>100</sub>	1918

Committee's Minute New York JAN 29 1918

Assigned + Lmb 1.18 Filled for oil fuel 1.18  
T.P. above 150° F

*F. P. Ashfield & J. Blackett*  
Engineer Surveyors to Lloyd's Register of Shipping.  
It is submitted that  
this vessel is eligible for  
THE RECORD + LMC 1. 18. 1 Geared Steam Tur  
Fitted for oil fuel 1. 18. F. P. above 150° F.  
Watertube Boilers Annual Survey.

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