

## REPORT ON MACHINERY.

No.

MON 14 MAY 1917

Received at London Office

of writing Report 10 When headed in at Local Office 10 Port of Pittsburgh Pa  
 in Survey held at Pittsburgh Pa Date, First Survey July 1<sup>st</sup> 1916 Last Survey 1917  
 g. Book. Steel Y. S. S. "Mamie" (Union I. W. S. No 127) Tons { Gross \_\_\_\_\_  
 on the \_\_\_\_\_ Net \_\_\_\_\_  
 Built at San Francisco By whom built Union Iron Works When built 1914  
 Engines made at East Pittsburgh By whom made Westinghouse Machine Co when made 1914  
 Makers made at 2500 By whom made \_\_\_\_\_ when made \_\_\_\_\_  
 Registered Horse Power 2084 Owners Natson Navigation Co Port belonging to \_\_\_\_\_  
 Shaft Horse Power at Full Power 12500 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_

RBINE ENGINES, &c. Description of Engines Two screw Single Reduction Geared Machinery No. of Turbines 2 HP 2 LP  
 Diameter of Rotor Shaft Journals, H.P. 4" L.P. 4" Diameter of Pinion Shaft 4 1/2" Heilley 6.99" dia x 4 1/2" hole Hollow Pinion  
 Diameter of Journals 6.99" Distance between Centres of Bearings 24 1/4" Diameter of Pitch Circle 4.494"  
 Diameter of Wheel Shaft 15.235" Distance between Centres of Bearings 4'-9" Diameter of Pitch Circle of Wheel 9'-11.8"  
 Length of Face Total 30" Diameter of Thrust Shaft under Collars 23" Kingsbury Thrust Diameter of Tunnel Shaft as per rule \_\_\_\_\_  
 as fitted \_\_\_\_\_  
 No. of Screw Shafts Two Diameter of same as per rule \_\_\_\_\_ Diameter of Propeller \_\_\_\_\_ Pitch of Propeller \_\_\_\_\_  
 No. of Blades \_\_\_\_\_ State whether Moveable \_\_\_\_\_ Total Surface \_\_\_\_\_ Diameter of Rotor Drum, H.P. 24" 28" L.P. 33" Impulse wheels, \_\_\_\_\_  
 Thickness at Bottom of Groove, H.P. 1 1/32" L.P. 1 1/2" Astern ✓ Revs. per Minute at Full Power, Turbine 2150 Propeller 135 LP 4-1/2"

## PARTICULARS OF BLADING.

	H.P. 1 <sup>st</sup> EXPANSION IMPULSE			L.P. REACTION			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.
1 <sup>st</sup> EXPANSION	13 1/4" MEAN	4'-4 3/8" MEAN	2	4"	41"	4	HP 13 1/4" MEAN	4'-4 3/8" MEAN	2
2 <sup>nd</sup>	2 1/2"	28"	8	5"	43"	3	LP 4 3/16"	4'-9 1/8"	2
3 <sup>rd</sup>	2 1/2"	29"	4	6"	45"	4			
4 <sup>th</sup>	3"	30"	4	4 1/2"	48"	4			
5 <sup>th</sup>	4"	32"	4	9"	51"	3			
6 <sup>th</sup>	4"	36"	10	9"	51"	2			

No. and size of Feed pumps

No. and size of Bilge pumps

No. and size of Bilge suction in Engine Room

In Holds, &amp;c.

No. of Bilge Injections \_\_\_\_\_ sizes \_\_\_\_\_ Connected to condenser, or to circulating pump \_\_\_\_\_ Is a separate Donkey Suction fitted in Engine Room &amp; size \_\_\_\_\_

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &amp;c. (Letter for record \_\_\_\_\_) Manufacturers of Steel \_\_\_\_\_

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

Each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each Boiler

Material

Outside diameter

Length of plain part

Thickness of plates

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness 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

Thickness 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

007439-007447-0228



*Tested by Hydraulic Pressure to*

*Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler*

*Is Easing Gear fitted*

*If so, is a report now forwarded?*

State the articles supplied:—

*Manufacturer.*

J. A. Davies, Engineer, Marine Dep<sup>t</sup>.

*Is the approved plan of main boiler forwarded herewith*

*Main boiler safety valves adjusted*

### Material of Steam Pipes

*Test pressure*

*Is an installation fitted for burning oil fuel*

*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 a duplicate of a previous case No If so, state name of vessel ✓

*General Remarks* (State quality of workmanship, opinions as to class, &c.)

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This machinery has been built under special survey, the materials and workmanship are of good quality and the hydraulic tests on the cylinders and the shop steaming trials proved satisfactory. It has been shipped to San Francisco to be fitted in the vessel San Francisco Surveyors notified.

Special

## Donkey Boiler Fee

Travelling Expenses (if any)

## Committee's Minute

*Assigned*

When applied for,

19... *P.H.*

When received  
per *Fieldman*  
26/4/

William Butler.

*Engineer Surveyor to Lloyd's Register of Shipping.*

New York APR 26 1917

See other report



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Foundation