

## REPORT ON MACHINERY.

No. 13418

23 JAN. 1917

REC'D NEW YORK Jan 11 1917  
Received at London Office  
of writing Report Dec. 28 1916 When handed in at Local Office Dec. 28 1916 Port of New York  
in Survey held at Schenectady Date, First Survey May 16 1916 Last Survey Dec. 11 1916  
g. Book. on the Union Iron Works No 129 (Number of Visits 5)  
Tons } Gross  
Net  
Built at Schenectady By whom built Union Iron Works When built  
Machines made at Schenectady By whom made General Electric Company when made 1916  
Machines made at By whom made when made  
Registered Horse Power Owners Port belonging to  
Net Horse Power at Full Power 2600 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

TURBINE ENGINES, &c.—Description of Engines Geared Turbines No. of Turbines One  
Diameter of Rotor Shaft Journals, H.P. 8" L.P. Diameter of Pinion Shaft 7"  
Diameter of Journals 10" H.P. 4.5" L.P. 4.5" Distance between Centres of Bearings 35" H.P. 4.5" L.P. 4.5" Diameter of Pitch Circle 4.5" H.P. 7.833" L.P. 57.667"  
Diameter of Wheel Shaft 1/4" Distance between Centres of Bearings 54 1/2" L.P. 40 1/2" L.P. 40 1/2" Diameter of Pitch Circle of Wheel 54.75"  
Pitch of Face 1/4.35" Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule  
Diameter of Screw Shafts as per rule as fitted Diameter of Propeller Pitch of Propeller  
Number of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. L.P. Astern  
Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 3380 Propeller 90

## PARTICULARS 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	7.541.25"	2' 1 1/2"	2				8.1254.15"	3' 3"	2
"	6.25"	3' 9"	1				3.375"	3' 3"	1
"	1.95"	3' 10 1/2"	1						
"	2.5"	4' 0"	1						
"	6"	4' 2"	1						
"									
"									
"									

and size of Feed pumps  
and size of Bilge pumps  
and size of Bilge suction in Engine Room  
In Holds, &c.

of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size  
all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible  
all connections with the sea direct on the skin of the ship Are they Valves or Cocks  
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  
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  
at pipes are carried through the bunkers How are they protected  
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ILERS, &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  
In 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  
Greatest 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  
g. 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  
e of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter  
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings  
bottom Thickness of plates bottom  
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

SUPERHEATER. Type \_\_\_\_\_ Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_  
Date of Test \_\_\_\_\_ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_  
Diameter of Safety Valve \_\_\_\_\_ Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

IS A DONKEY BOILER FITTED? \_\_\_\_\_ If so, is a report now forwarded? \_\_\_\_\_

SPARE GEAR. State the articles supplied:— \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

May 16 July 11 Aug 17 Oct 9 Dec 11

Is the approved plan of main boiler forwarded herewith \_\_\_\_\_

Dates of Examination of principal parts—Casings

May 16

Rotors

July 11

Blading

Aug 17

Gearing

Aug 17

Rotor shaft

July 11

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Main boiler safety valves adjusted

Thickness of adjusting washers

Material and tensile strength of Rotor shaft

Steel 80000 lb per sq in

Identification Mark on Do. E.M.S.

Material and tensile strength of Pinion shaft

Steel 100000 lb per sq in

Identification Mark on Do. E.M.S.

Material of Wheel shaft

Steel

Identification Mark on Do. E.M.S.

Material of Thrust shaft

Identification Mark on Do.

Material of Tunnel shafts

Identification Marks on Do.

Material of Screw shafts

Identification Marks on Do.

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

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, etc.)

These Engines have been constructed

under Special Survey and in accordance with the approved plans

The materials and workmanship are good

The Engines have been forwarded to San Francisco to be fitted on board.

The amount of Entry Fee

£

:

:

When applied for,

Special

£

:

:

19

Donkey Boiler Fee

£

:

:

When received,

Travelling Expenses (if any)

£

:

:

19

Committee's Minute

New York JAN 11 1917

Assigned

See S. To Rpt. No 2426



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