

REPORT ON MACHINERY.

Date of writing Report 19 When handed in at Local Office 19 Port of Pittsburgh Pa

No. in Survey held at Ford City Pa. Date, First Survey Last Survey 19
Reg. Book.

on the New S.S. "War Cavalry" (J. Coughlan & Sons 1.8)
Double Reduction Gear made by Haines Machine Co. Ford City Pa. Tons } Gross 5756.85
Net 4199.01

Master John Parks Built at Vancouver B.C. By whom built J. Coughlan & Sons When built 1918

Engines made at Spokane Wash By whom made The Halliday Co. when made 1918

Boilers made at Vancouver B.C. By whom made Vulcan Iron Works Ld when made 1919

Registered Horse Power 564 Owners Imperial Munitions Board Port belonging to London

Shaft Horse Power at Full Power 2800 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engine Double Reduction Gear Turbines No. of Turbines

Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shafts 1st Red. 4 7/8, 2nd Red. 10"
Diameter of Journals 1st Red. 5, 2nd Red. 10 Distance between Centres of Bearings 1st Red. 2-6, 2nd Red. 7-75 (31 teeth)
Diameter of Wheel Shaft 13 1/2 Distance between Centres of Bearings 5-1 1/2 Diameter of Pitch Circle 1st Red. 13-20 (33 de) 2nd Red. 18-80 (197 de)
Width of Face 2-9 R.N. 28 Diameter of Thrust Shaft under Collars of large shaft Diameter of Tunnel Shaft as per rule as fitted
No. of Screw Shafts Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller
No. 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 3200 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.
1ST EXPANSION									
2ND									
3RD									
4TH									
5TH									
6TH									
7TH									
8TH									

No. and size of Feed pumps
No. and size of Bilge pumps
No. and size of Bilge suction in Engine Room
In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & 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 Corks
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
What pipes are carried through the bunkers 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, &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 stanged 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
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plates
Size 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 bottom 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

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

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,

A. B. Hubbel Manufacturer.

1918
 Dates of Survey while building { During progress of work in shops -- } *Nov. 15. 23. Dec. 4-9.*
 { During erection on board vessel --- }
 Total No. of visits _____

Is the approved plan of main boiler forwarded herewith _____

Dates of Examination of principal parts—Casings _____ Rotors _____ Blading _____ Gearing *12-9-18*
 Rotor shaft _____ Thrust shaft *11-23-18* Tunnel shafts _____ Screw shaft _____ Propeller _____
 Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____
 Completion of pumping arrangements _____ Boilers fired _____ Engines tried under steam _____
 Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material and tensile strength of Rotor shaft *1st R. Chrome Nickel Steel, 2nd R. O.H. Forge Steel*
 Material and tensile strength of Pinion shaft *1st RED. PORT & STAR 121,300 lbs.* Identification Mark on Do. *1st RED. PORT N. 6 T.H.*
 Material of Wheel shaft *Forge Steel* Identification Mark on Do. *N. 8 T.H.* Material of Thrust shaft *Kingbury* Identification Mark on Do. *1st RED. STAR N. 10 T.H.*
 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, &c.)

Certificate (if required) to be sent to _____
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

Credit to Fee to Pittsburgh			
The amount of Entry Fee	£	:	When applied for,
Special	£	:	<i>May 15th 1919</i>
Donkey Boiler Fee	£	:	When received,
Travelling Expenses (if any)	<i>\$ 8</i>	<i>00</i>	_____ 19____

J. Hodge William Bates
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI JUN. 13. 1919*

Assigned

Rpt. 13. RE
 Part of
 No. in Reg. Book
 Owners
 Yard No.
 DESCRIPTION
 Two Ferr
 Canadian
 Capacity of L
 Where is Dy
 Position of M
 Positions of
 6 Swivel
 8 Swivel
 If fuses are
 circuits
 If vessel is u
 Are the fuse
 Are all fuse
 are per
 Are all switc
 Total number
 A 6
 B 4
 C 1
 D Wheel
 E
 2 M
 2
 5
 If arc light
 Where are
 DESCRIPTION
 Main cable
 Branch cable
 Branch cable
 Leads to lam
 Cargo light
 DESCRIPTION
 All
 Boxes
 Joints in ca
 of Reu
 insu
 Are all the
 position
 Are there a
 How are th

