

# REPORT ON MACHINERY.

No. 572

REC'D NEW YORK *Sept 12 1919*

Received at London Office *15 OCT 1919*

of writing Report *July 12 1919* When handed in at Local Office *July 12 1919* Port of *Portland, Oregon.*

in Survey held at *Spokane, Wash.* Date, First Survey *May 27, 1919* Last Survey *June 18, 1919*

on the *Steel S. S. "War Company"* (Number of Visits *2*)  
*(J. Coughlan & Sons No. 10 Hull)*

Master *D. McBeath* Built at *Vancouver, B.C.* By whom built *J. Coughlan & Sons* When built *1919*

Machinery made at *Spokane, Wash.* By whom made *Hallidie Co.* when made *1919*

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

Registered Horse Power *577* Owners *Imperial Maritime Board* Port belonging to *London*

Net Horse Power at Full Power *2500* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *YES*

*P. Turbine of Shop No. 8*  
**TURBINE ENGINES, &c.**—Description of Engines *Cross Compound Geared Parson's* No. of Turbines *One*

Diameter of Rotor Shaft Journals, H.P. *L.P. 4"* Diameter of Pinion Shaft *4 7/8" & 12 5/8"*

Diameter of Journals *5" & 10"* Distance between Centres of Bearings *2' 6" & 5' 1 1/2"* Diameter of Pitch Circle *7.75" & 13.2"*

Diameter of Wheel Shaft *13 1/2"* Distance between Centres of Bearings \_\_\_\_\_ Diameter of Pitch Circle of Wheel *46" & 78.8"*

Thickness of Face *15" & 14"* Diameter of Thrust Shaft under Collars \_\_\_\_\_ Diameter of Tunnel Shaft as per rule \_\_\_\_\_ as fitted \_\_\_\_\_

Diameter of Screw Shafts \_\_\_\_\_ Diameter of same as per rule \_\_\_\_\_ Diameter of Propeller \_\_\_\_\_ Pitch of Propeller \_\_\_\_\_

Number of Blades \_\_\_\_\_ State whether Moveable \_\_\_\_\_ Total Surface \_\_\_\_\_ Diameter of Rotor Drum; H.P. \_\_\_\_\_ L.P. *26" astern 2' 5"* mean \_\_\_\_\_

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.
EXPANSION .....				<i>1 7/8"</i>	<i>2' 5 1/2"</i>	<i>2</i>			
" .....				<i>2 1/2"</i>	<i>2' 7"</i>	<i>2</i>			
" .....				<i>3 5/16"</i>	<i>2' 8 5/8"</i>	<i>2</i>			
" .....				<i>4 3/8"</i>	<i>2' 10 1/2"</i>	<i>2</i>			
" .....				<i>5"</i>	<i>3' 0"</i>	<i>1</i>			
" .....				<i>8"</i>	<i>3' 0"</i>	<i>1</i>			
" .....				<i>5"</i>	<i>3' 0"</i>	<i>1</i>			
" .....				<i>5"</i>	<i>3' 0"</i>	<i>1</i>			

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 \_\_\_\_\_

all 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 \_\_\_\_\_

**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 \_\_\_\_\_

each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler \_\_\_\_\_ No. and Description of Safety Valves to \_\_\_\_\_

boiler \_\_\_\_\_ Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

least 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 \_\_\_\_\_

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 \_\_\_\_\_

of compensating ring \_\_\_\_\_ No. and Description of Furnaces in each Boiler \_\_\_\_\_ Material \_\_\_\_\_ Outside diameter \_\_\_\_\_

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 \_\_\_\_\_

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 \_\_\_\_\_

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 \_\_\_\_\_

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 \_\_\_\_\_



