

# REPORT ON MACHINERY.

No. 572

Received at London Office **10 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"** (J. Coughlan & Sons No. 10 Hull) (Number of Visits **2**)  
 Gross **5754.00**  
 Net **4247.40**

ster **D. McBeath** Built at **Vancouver, B.C.** By whom built **J. Coughlan & Sons** When built **1919**  
 ines made at **Spokane, Wash.** By whom made **Hallidie Co.** when made **1919**  
 lers made at **Vancouver, B.C.** By whom made **Vulcan Iron Works** when made **1919**  
 istered Horse Power **577** Owners **Imperial Munitions Board** Port belonging to **London**  
 ft 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**  
 eter of Rotor Shaft Journals, H.P. **4"** Diameter of Pignon Shaft **4 7/8" & 12 5/8"**  
 eter of Journals **5" & 10"** Distance between Centres of Bearings **2' 6" & 5' 1 1/2"** Diameter of Pitch Circle **7.75" & 13.2"**  
 eter of Wheel Shaft **13 1/2"** Distance between Centres of Bearings **15" & 14"** Diameter of Pitch Circle of Wheel **46" & 78.8"**  
 h of Face **15" & 14"** Diameter of Thrust Shaft under Collars **15" & 14"** Diameter of Tunnel Shaft as per rule **15" & 14"**  
 of Screw Shafts **15" & 14"** Diameter of same as fitted **15" & 14"** Diameter of Propeller **15" & 14"** Pitch of Propeller **15" & 14"**  
 of Blades **15" & 14"** State whether Moveable **15" & 14"** Total Surface **15" & 14"** Diameter of Rotor Drum; H.P. **15" & 14"** L.P. **26" astern 2' 5"**  
 kness at Bottom of Groove, H.P. **15" & 14"** L.P. **15" & 14"** Astern **15" & 14"** Revs. per Minute at Full Power, Turbine **3200** Propeller **90**

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 .....			1 7/8"	2' 5 1/2"	2			
" .....			2 1/2"	2' 7"	2			
" .....			3 5/16"	2' 8 5/8"	2			
" .....			4 3/8"	2' 10 1/2"	2			
" .....			5"	3' 0"	1			
" .....			8"	3' 0"	1			
" .....			5"	3' 0"	1			
" .....			5"	3' 0"	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  
 t 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

**TERS, &c.**—(Letter for record) Manufacturers of Steel  
 l Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers  
 lking 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  
 lest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates  
 kness 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  
 rivets Working pressure of shell by rules Size of manhole in shell  
 plates

of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter  
 th of plain part top crown Thickness of plates Description of longitudinal joint No. of strengthening rings  
 bottom bottom  
 ing 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 End plates in steam space  
 rial of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays  
 rial Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom  
 eter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom  
 kness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules  
 eter 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  
 kness of girder at centre Length as per rule Distance apart Number and pitch of stays in each  
 ing pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter  
 kness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets  
 ing pressure of shell by rules Crown plates: Thickness How stayed

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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,

HALLIDIE COMPANY,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1919 May 27. June 18.  
During erection on board vessel - - -  
Total No. of visits Two

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Casings May 27 & June 18 Rotors May 27 June 18 Blading May 27 June 18 Gearing  
Rotor shaft May 27 June 18 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 May 27 & June 18  
Main boiler safety valves adjusted Thickness of adjusting washers

Material and tensile strength of Rotor shaft L.P.O.H. Steel 66,000 lbs. Identification Mark on Do. 124 A.W.L. 19

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

Material of Wheel shaft Identification Mark on Do. 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, &c.)

The L.P. Half of Hallidie Company's No. 8 Turbine has now been constructed in accordance with the Rules and to the approved plans. The material and workmanship are sound and good. The Turbine has been forwarded to Vancouver, B.C. to be installed in one of J. Coughlan & Sons' Vessels.

The amount of Entry Fee ... £ : : When applied for,  
Special ... \$ 20 : 36 : July 22 1919  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) \$ 68 : 00 : 19

Committee's Minute TUE. 14 OCT. 1919

Assigned

J. H. Yates

Engineer Surveyor to Lloyd's Register of Shipping.



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