

REPORT ON MACHINERY.

Received at London Office.....

of writing Report 3rd Sept 1918 When handed in at Local Office Buffalo N.Y.
 in Survey held at Wellsville N.Y. Date, First Survey 6th July 1918 Last Survey March 15 1919
 on the Turbine Engines for J. Couglan Sons S.S. War Noble Tons { Gross 5741.12
 Net 4165.97
 Built at Vancouver B.C. By whom built J. Couglan Sons When built 1918
 By whom made Ther Turbine Co (No 50012) when made 1918
Vancouver B.C. By whom made Vulcan Iron Works when made 1918
 Registered Horse Power 442 576 Owners Raeburn & Berrel Port belonging to Glasgow
 Is Refrigerating Machinery fitted for cargo purposes Y Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Cartis Rotor Double Reduction No. of Turbines 1
 Diameter of Rotor Shaft Journals, H.P. 4.992 L.P. — Diameter of Pinion Shaft High speed 5.992 - Low speed 9.487
 Diameter of Journals HS-5.992 - LS 4.87 Distance between Centres of Bearings HS-278 - LS 62 Diameter of Pitch Circle HS-7.402 - LS 10.878
 Diameter of Wheel Shaft HS-6.712 - LS 2.52 Distance between Centres of Bearings LS 652 Diameter of Pitch Circle of Wheel HS-58.59 - LS 52.11
 Diameter of Tunnel Shaft 16 as fitted.....
 Diameter of same as per rule..... Diameter of Propeller..... Pitch of Propeller DISCS
 State whether Moveable..... Total Surface..... Diameter of Rotor 31 1/2 L.P. Astern 31 1/2
 Revs. per Minute at Full Power, Turbine 3600 Propeller 100

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	6' 8 1/2"	33 1/2"	2				6' 8 1/2"	33 1/2"	2
"	6' 9 1/2"	33 1/2"	2				6' 9 3/4"	35 7/8"	1
"	2"	35 1/2"	1						
"	3"	35 1/2"	1						
"	4"	35 7/8"	1						
"	5"	36 1/8"	1						
"	6"	39 7/8"	1						
"	6 7/8"	41 3/4"	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.....
 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, &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.....
 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.....
 Range of tensile strength..... Are the shell plates welded or flanged..... Descrip. of riveting: cir. seams.....
 Diameter of rivet holes in long. seams..... Pitch of rivets..... Lap of plates or width of butt straps.....
 Working pressure of shell by rules..... Size of manhole in shell.....
 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.....
 Working pressure by rules..... 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.....
 How are stays secured..... Working pressure by rules..... Material of stays.....
 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.....
 Material of tube plates..... Thickness: Front..... Back..... Mean pitch of stays.....
 Working pressures by rules..... Girders to Chamber tops: Material..... Depth and.....
 Length as per rule..... Distance apart..... Number and pitch of stays in each.....
 Steam dome: description of joint to shell..... % of strength of joint..... Diameter.....
 Description of longitudinal joint..... Diameter of rivet holes..... Pitch of rivets.....
 Crown plates: Thickness..... How stayed.....



