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REPORT ON MACHINERY.

No. 4

Received at London Office

of writing Report 21st Aug 1918 When handed in at Local Office 19 Port of Buffalo N.Y.
 in Survey held at Wellsville N.Y. Date, First Survey June 14th 1918 Last Survey Aug 14 1918
 on the Turbine for J. Couglen & Son's S.S. War Chief Hull No. 5 (Number of Visits) 1
 Gross 5742.98 Tons
 Net 4179.88
 Built at Vancouver B.C. By whom built J. Couglen & Son When built 1918
 Engines made at Wellsville N.Y. By whom made Herr Turbine Co (50011) when made 1918
 Meters made at Vancouver B.C. By whom made Vulcan Iron Works, L^a when made 1918
 Horse Power 473 5/6 Owners Naeburn & Verel Port belonging to Glasgow
 Shaft Horse Power at Full Power 2650 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Curtis Rotor, Double reduction Gear 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 H.S. 5.992 L.S. 9.487" Distance between Centres of Bearings H.S. 27 1/2 L.S. 6 1/2" Diameter of Pitch Circle H.S. 7.402" L.S. 10.878"
 Diameter of Wheel Shaft 14" Distance between Centres of Bearings L.S. 65 1/2" Diameter of Pitch Circle of Wheel H.S. 35.59 L.S. 52.11"
 Width of Face 16" Each 19" Diameter of Thrust Shaft under Collars — Diameter of Tunnel Shaft — as per rule as fitted
 Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller
 State whether Moveable Total Surface Diameter of Rotor Discs H.P. 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" 9 1/8"	33 1/2"	2				6" 9 1/8"	33 1/2"	2
"	6" 9 1/8"	33 1/2"	2				6" 4 3/8"	35 1/2"	1
"	2"	35 1/8"	1	✓	✓	✓			
"	3"	35 7/8"	1						
"	4"	35 5/8"	1						
"	5"	36 5/8"	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 Yes 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 stowhold 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 each boiler
 Area of each valve Pressure to which they are adjusted Are they fitted with casing 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 flanged 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
 rivets
 Percentages of strength of longitudinal joint 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
 top crown
 Length of plain part Thickness of plates Description of longitudinal joint No. of strengthening rings
 bottom 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

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