

## REPORT ON MACHINERY.

No. 41612

Date of writing Report 27.12.1921 When handed in at Local Office 27.12.1921 Port of Glasgow  
 No. in Survey held at Dalminn Date, First Survey 12/1/1920 Last Survey 23/12/21 19  
 Reg. Book. on the "S.S. Largs Bay" (Number of Visits 86)  
 Master Built at Dalminn By whom built Tom Beardmore & Co. Ltd. Tons { Gross 13851  
 Engines made at Dalminn By whom made Tom Beardmore & Co. Ltd. (616) when made 1921 Net 8457  
 Boilers made at Dalminn By whom made Tom Beardmore & Co. Ltd. (616) when made 1921  
 Registered Horse Power 1977 N.H.P. Owners Australian Commonwealth Govt. Port belonging to Adelaide  
 Shaft Horse Power at Full Power 9000 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

**TURBINE ENGINES, &c.** Description of Engines Parsons' D.C. Grand Turbines No. of Turbines 2 H.P. 2 L.P.  
 Diameter of Rotor Shaft Journals, H.P. 4 1/2" L.P. 7" Diameter of Pinion Shaft H.P. 12 1/2" L.P. 5 1/2" with 2 1/2" hole 2" Pin 11" with 5" hole  
 Diameter of Journals 5 1/4" H.P. L.P. Distance between Centres of Bearings H.P. 21 1/2" L.P. 31 1/4" Diameter of Pitch Circle H.P. 8 3/4" L.P. 13 0 3/4" 2" Pin 20 5/4"  
 Diameter of Wheel Shaft 16" Distance between Centres of Bearings 86 1/2" Diameter of Pitch Circle of Wheel 103 8/5"  
 Width of Face 39" Diameter of Thrust Shaft under Collars 16" Diameter of Tunnel Shaft as per rate approved  
 No. of Screw Shafts 2 Continuous Line as per rate approved as fitted 16 1/2" Diameter of Propeller 19' 0" Pitch of Propeller 18' 6"  
 No. of Blades 4 State whether Moveable yes Total Surface 113 1/2" Diameter of Rotor Drum, H.P. L.P. as stern  
 Thickness at Bottom of Groove, H.P. L.P. as stern Revs. per Minute at Full Power, Turbine H.P. 3220 L.P. 2110 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 3, 12 x 9 x 24" ✓  
 No. and size of Bilge pumps 2, 8 x 10 x 10" ✓  
 No. and size of Bilge suction in Engine Room (6) 3 1/2" Boiler Room (5) 3 1/2" ✓  
 In Holds, &c. (7) aft of engine room (9) fore of Boiler Room  
 No. of Bilge Injections 2 sizes 14" Connected to condenser, or to circulating pump pumps Is a separate Donkey Suction fitted in Engine Room & size yes 6 1/2"  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both yes  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line below  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes  
 What pipes are carried through the bunkers none How are they protected  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes  
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from B. Deck.

**BOILERS, &c.** (Letter for record (r) Manufacturers of Steel Tom Beardmore & Co. Ltd.)  
 Total Heating Surface of Boilers 322 25923 for 5 boilers No. and Description of Boiler (3) 82 boiler 3 28.8 2 S.B.  
 Working Pressure 220 Is Forced Draft fitted yes Date of test 26/5/21, 10/6/21 No. of Certificate 15837, 15847  
 Tested by hydraulic pressure to 355 No. and Description of Safety Valves to  
 Can each boiler be worked separately yes Area of fire grate in each boiler Pressure to which they are adjusted 225  
 Are they fitted with easing gear yes  
 each boiler quadruple spring Area of each valve 11 1/2" Mean dia. of boilers 17 1/2" Length 22 1/2" Material of shell plates steel  
 Smallest distance between boilers or uptakes and bunkers or woodwork 15" Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double lap  
 Thickness 1 3/8" Range of tensile strength 30534 tons Pitch of rivets 10 1/2" Lap of plates or width of butt straps 23 1/2"  
 long. seams triple butt Diameter of rivet holes in long. seams 1 1/2" Working pressure of shell by rules 230 Size of manhole in shell 16 x 12"  
 rivets 92.0 plates 84.2  
 Per centages of strength of longitudinal joint plates 84.2  
 Size of compensating ring 40 x 36 1/2" No. and Description of Furnaces in each Boiler 4 Mounoir Material steel Outside diameter 48 1/8"  
 Length of plain part top crown 7 1/4" bottom 16" Description of longitudinal joint welded No. of strengthening rings  
 Working pressure of furnace by the rules 231 Combustion chamber plates: Material steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 13/16  
 Pitch of stays to ditto: Sides 9 5/8 x 9 1/2" Back 10 1/2 x 7 1/2" Top 9 5/8 x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 237  
 Material of stays iron Diameter at smallest part 2 08 Area supported by stay 89 Working pressure by rules 230 End plates in steam space  
 Material steel Thickness 1 1/4" Pitch of stays 17 7/8 x 18 How are stays secured rivets Working pressure by rules 221 Material of stays steel  
 Diameter at smallest part 7 06 Area supported by each stay 3 18 Working pressure by rules 231 Material of Front plates at bottom steel  
 Thickness 1" Material of Lower back plate steel Thickness Greatest pitch of stays Working pressure of plate by rules  
 Diameter of tubes 2 3/4" Pitch of tubes 4 x 4" Material of tube plates steel Thickness: Front 1" Back 1 1/2" Mean pitch of stays 10"  
 Pitch across wide water spaces 13 3/4" with double Working pressures by rules 292 Girders to Chamber tops: Material steel 2020 Depth and  
 thickness of girder at centre 9 x 3/4" double Length as per rule 30 1/2" Distance apart 8" Number and pitch of stays in each (2) 9 5/8  
 Working pressure by rules 260 1/2 Steam dome: description of joint to shell none % of strength of joint Diameter of rivet holes Pitch of rivets  
 Thickness of shell plates Material Description of longitudinal joint How stayed



