

# REPORT ON MACHINERY.

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Date of writing Report 29.9.25 When handed in at Local Office Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 24.6.24 Last Survey 25.9.1925  
 Reg. Book on the new steel T.S.S. "LLANBOYERY CASTLE".  
 Master Built at Glasgow By whom built Barclay Curle & Co. (N° 606) When built 1925  
 Engines made at Glasgow By whom made Barclay Curle & Co. (N° 606) when made 1925  
 Boilers made at Glasgow By whom made Barclay Curle & Co. (N° 606) when made 1925  
 Registered Horse Power Owners Union Castle Steamship Co. Ltd. Port belonging to London  
 Nom. Horse Power as per Section 28 1085 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

**ENGINES, &c.**—Description of Engines Twin. Quadruple expansion No. of Cylinders 8 No. of Cranks 8  
 Dia. of Cylinders 23"-33 1/4"-48"-70" Length of Stroke 51" Revs. per minute 80 Dia. of Screw shaft 14.5" as per rule appd. 15" Material of steel  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes No O.G. Is the after end of the liner made water tight  
 in the propeller boss yes If the liner is in more than one length are the joints burned - If the liner does not fit tightly at the part  
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive - If two  
 liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-2"  
 Dia. of Tunnel shaft 13.14" as per rule appd. 13 3/4" Dia. of Crank shaft journals 13.8" as per rule appd. 14 1/2" Dia. of Crank pin 15 1/4" Size of Crank webs 10"x22 1/2" Dia. of thrust shaft under  
 collars 14 1/2" Dia. of screw 17'-3" Pitch of Screw 19'-9" No. of Blades 3 State whether moveable yes Total surface 750 sq ft  
 No. of Feed pumps 3 Diameter of ditto 12" Stroke 24" Can one be overhauled while the other is at work yes (Worthington Simpson)  
 No. of Bilge pumps 2 Diameter of ditto 5 1/2" Stroke 25 1/2" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 3 Sizes of Pumps 2@11" & 7 1/2" x 9" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 4@3 1/2", 1@3 1/2" in N° 4 dry tank. Boiler room - 2@3 1/2" In Holds, &c. N° 1 hold - 2@3 1/2" N° 2 hold - 2@3 1/2" Bunkers hold -  
 2@3" 6 nos bunkers - 2@3" N° 3 hold - 2@3" N° 4 hold - 2@3" Tunnel well - 1@3".  
 No. of Bilge Injections 2 sizes 11" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size 2@5 1/2"  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible none  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both  
 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 both  
 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 Bridge deck

**BOILERS, &c.**—(Letter for record 5) Manufacturers of Steel Wm Beardmore & Co. Ltd. & The Lanarkshire Steel Co. Ltd.  
 Total Heating Surface of Boilers 19,647 Is Forced Draft fitted no No. and Description of Boilers 2SE. as below — HS=5,139 sq ft  
 Working Pressure 220 Tested by hydraulic pressure to 380 Date of test 10-12-24 No. of Certificate 16677  
 Can each boiler be worked separately yes Area of fire grate in each boiler 64.68 sq ft TOTAL 517 sq ft No. and Description of Safety Valves to  
 each boiler 2 level valves High lift Area of each valve 7.060" Pressure to which they are adjusted 225 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 2'-3" Mean dia. of boilers 15'-8" Length 11'-11" Material of shell plates steel  
 Thickness 1 1/2" Range of tensile strength 30-34 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR.  
 long. seams TR. 10BS Diameter of rivet holes in long. seams 19 1/16" Pitch of rivets 10 3/8" Lap of plates or width of butt straps 22 7/8"  
 Per centages of strength of longitudinal joint rivets 90.5 Working pressure of shell by rules 221 Size of manhole in shell 20 1/2" x 16 1/2"  
 manhole 16" x 12" plate 84.9  
 Size of compensating ring 10 3/4" x 15 1/2" No. and Description of Furnaces in each boiler 3 Morrison Material steel Outside diameter 3'-10 5/16"  
 Length of plain part top Thickness of plates crown 2 1/2" Description of longitudinal joint welded No. of strengthening rings  
 bottom 3 1/2"  
 Working pressure of furnace by the rules 220 Combustion chamber plates: Material steel Thickness: Sides 2 1/2" Back 1 1/2" Top 2 1/2" Bottom 2 1/2"  
 Pitch of stays to ditto: Sides 1 1/2" x 8 1/8" Back 1 1/2" x 7 1/4" Top 1 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 222  
 Material of stays steel Area at smallest part 476.00 sq in Area supported by each stay 16.58 sq in Working pressure by rules 229 & 253 End plates in steam space:  
 Material steel Thickness 1 1/16" Pitch of stays 17" x 22 1/2" How are stays secured cut outside Working pressure by rule appd. 220 Material of stays steel  
 Area at smallest part 7.6 sq in Area supported by each stay 379.0" Working pressure by rules 225 Material of Front plates at bottom steel  
 Thickness 7/8" Material of Lower back plate steel Thickness 2 1/2" Greatest pitch of stays 14 1/4" x 7 3/4" Working pressure of plate by rules 221  
 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 8"  
 Pitch across wide water spaces 14" Working pressures by rules 258 Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 10 1/2" x 2@1" Length as per rule 3-3 5/8" Distance apart 8 1/2" Number and pitch of stays in each 4@7 1/2"  
 Working pressure by rules 123 Steam dome: description of joint to shell none % of strength of joint  
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

**SUPERHEATER.** Type none 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 Valves Pressure to which each is adjusted Is Easing Gear fitted

If not, state whether, and when, one will be sent



