

# REPORT ON MACHINERY.

No. 44220

10 DEC 1924

Date of writing Report Dec<sup>r</sup> 4<sup>th</sup> 1924 When handed in at Local Office Dec<sup>r</sup> 6<sup>th</sup> 1924 Port of GLASGOW. Received at London Office

No. in Survey held at Groon. Date, First Survey 9th June 1924 Last Survey Dec<sup>r</sup> 2<sup>nd</sup> 1924  
Reg. Book. on the Machinery of SS TURQUOISE (Number of Visits 16)

Master Groon Built at Groon By whom built Ailsa S.B. Co Ltd. Tons { Gross 570  
Net 285

Engines made at Groon By whom made Ailsa S.B. Co Ltd (N<sup>o</sup> 126) When built 1924

Boilers made at Glasgow By whom made Yorth S.B. and Eng Co Ltd (1821) when made 1924

Registered Horse Power W. Robertson Port belonging to Glasgow

Nom. Horse Power as per Section 28 88 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 13 1/2", 21", 35" Length of Stroke 26" Revs. per minute 118 Dia. of Screw shaft 4 1/2" Material of screw shaft S

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 No 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 Yes If two

liners are fitted, is the shaft lapped or protected between the liners No oil gland Length of stern bush 31 1/2"

Dia. of Tunnel shaft as per rule 6.80 Dia. of Crank shaft journals as per rule 4.119 Dia. of Crank pin 4 1/2" Size of Crank webs 13 3/4" x 4 1/2" Dia. of thrust shaft under

collars 4 1/2" Dia. of screw 10ft. Pitch of Screw 10ft. No. of Blades 4 State whether moveable No Total surface 34 sq.

No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 13" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 13" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps Ballast 8" x 8" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 @ 2" In Holds, &c. For<sup>d</sup> hold 3 @ 2"

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/4"

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 No

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 Above

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 Fore peak & For<sup>d</sup> bilges How are they protected Wood casing

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 None Is it fitted with a watertight door No worked from No

OILERS, &c.—(Letter for record S) Manufacturers of Steel ISB

Total Heating Surface of Boilers Is Forced Draft fitted No No. and Description of Boilers One S.E. Marine

Working Pressure 180 lbs Tested by hydraulic pressure to 320 lbs Date of test 31-10-24 No. of Certificate 16644

Can each boiler be worked separately No Area of fire grate in each boiler No No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 5.94 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 3' Mean dia. of boilers No Length No Material of shell plates No

Thickness No Range of tensile strength No Are the shell plates welded or flanged No Descrip. of riveting: cir. seams No

ong. seams No Diameter of rivet holes in long. seams No Pitch of rivets No Lap of plates or width of butt straps No

Per centages of strength of longitudinal joint No Working pressure of shell by rules No Size of manhole in shell No

Size of compensating ring No No. and Description of Furnaces in each boiler No Material No Outside diameter No

Length of plain part No Thickness of plates No Description of longitudinal joint No No. of strengthening rings No

Working pressure of furnace by the rules No Combustion chamber plates: Material No Thickness: Sides No Back No Top No Bottom No

Pitch of stays to ditto: Sides No Back No Top No If stays are fitted with nuts or riveted heads No Working pressure by rules No

Material of stays No Area at smallest part No Area supported by each stay No Working pressure by rules No End plates in steam space: No

Material No Thickness No Pitch of stays No How are stays secured No Working pressure by rules No Material of stays No

Area at smallest part No Area supported by each stay No Working pressure by rules No Material of Front plates at bottom No

Thickness No Material of Lower back plate No Thickness No Greatest pitch of stays No Working pressure of plate by rules No

Diameter of tubes No Pitch of tubes No Material of tube plates No Thickness: Front No Back No Mean pitch of stays No

Pitch across wide water spaces No Working pressures by rules No Girders to Chamber tops: Material No Depth and No

Thickness of girder at centre No Length as per rule No Distance apart No Number and pitch of stays in each No

Working pressure by rules No Steam dome: description of joint to shell No % of strength of joint No

Diameter No Thickness of shell plates No Material No Description of longitudinal joint No Diam. of rivet holes No

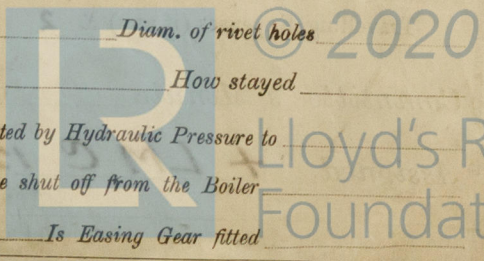
Pitch of rivets No Working pressure of shell by rules No Crown plates No Thickness No How stayed No

PERHEATER. Type No Date of Approval of Plan No Tested by Hydraulic Pressure to No

Date of Test No Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler No

Diameter of Safety Valve No Pressure to which each is adjusted No Is Easing Gear fitted No

1570-241200-831200





IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two connecting rod top end bolts and nuts two bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed pump valves, one set of bilge pump valves a quantity of assorted bolts and nuts and iron of various sizes*

The foregoing is a correct description,

FOR AILSA SHIPBUILDING CO., LIMITED

*McNaughton*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1924 Jan 9 Aug 11.15.19 Oct 1.20.23.28.30 Nov 4.10.13.18.24.28 Dec During erection on board vessel - - - 16 Total No. of visits 16 Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 1-10-24 Slides 4-11-24 Covers 4-11-24 Pistons 1-10-24 Rods 23-8-24 Connecting rods 4-11-24 Crank shaft 1-10-24 Thrust shaft 1-10-24 Tunnel shafts — Screw shaft 28-10-24 Propeller 23-10-24 Stern tube 23-10-24 Steam pipes tested 18-11-24 Engine and boiler seatings 23-10-24 Engines holding down bolts 18-11-24 Completion of pumping arrangements 28-11-24 Boilers fixed 18-11-24 Engines tried under steam 2-12-24 Completion of fitting sea connections 28-10-24 Stern tube 28-10-24 Screw shaft and propeller 30-10-24 Main boiler safety valves adjusted 28-11-24 Thickness of adjusting washers PV 3/8 SV 7/16 Material of Crank shaft S Identification Mark on Do. LLOYDS NO 633 D.C.B. Material of Thrust shaft S Identification Mark on Do. LLOYDS NO 633 D.C.B. 1-10-24 Material of Tunnel shafts none Identification Marks on Do. 1-10-24 Material of Screw shafts S Identification Marks on Do. LLOYDS NO 633 D.C.B. 28-10-24 Material of Steam Pipes S D Copper Test pressure 360 lbs sq in Is an installation fitted for burning oil fuel No 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 duplicate of a previous case Yes If so, state name of vessel SS Beryl.

General Remarks (State quality of workmanship, opinions as to class, &c. These engines have been built under Special Survey in accordance with the Rules of the Society. Materials and workmanship are of good quality The engines and boiler have been securely fitted on board and tried under steam with satisfactory results It is submitted that the machinery of this vessel is eligible for a record of LMC 12-24.

It is submitted that this vessel is eligible for THE RECORD. + LMC 12.24. CL.

*David C Barr* 15/12/24

CERTIFICATE WRITTEN 15.12.24

The amount of Entry Fee ... £ 2 : 0 : When applied for, 3/5 of Special ... £ 13 : 4 : 9.12.24 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ 2 : 2 : 9.12.24

David C Barr Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 9-12-24 Assigned + LMC 12.24