

REPORT ON MACHINERY.

No. 44220

10 DEC 1924

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

No. in Survey held at Groon. Date, First Survey 9th June 1924 Last Survey Dec^r 2nd 1924
Reg. Book. 1024 (Number of Visits 6)

on the Machinery of SS TURQUOISE

Master Yroon 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^o 126) when made 1924

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

Registered Horse Power _____ Owners 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 as per rule 4.86 Material of screw shaft S
as fitted 4.7 1/2

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 _____ 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 1/8 Size of Crank webs 13 3/4 x 4 5/8 Dia. of thrust shaft under collars 4 1/8 Dia. of screw 10ft. Pitch of Screw 10ft. No. of Blades 4 State whether moceable 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^d 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 _____

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^d 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 _____ worked from _____

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

Total Heating Surface of Boilers 15B 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 _____ Area of fire grate in each boiler _____ 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 _____ Length _____ Material of shell plates _____

Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____

ong. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____

Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____

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

Length of plain part _____ 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 _____

Pitch of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____

Material of stays _____ Area 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 _____

Area 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 _____

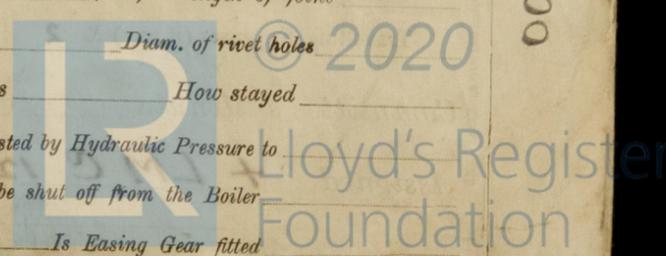
Working pressure by rules _____ Steam dome: description of joint to shell _____ % of strength of joint _____

Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

PERHEATER. Type _____ 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 Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

1920-241200-831200



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

J 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 --- Total No. of visits 16

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " "

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. 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. Material of Steam Pipes S D Copper ✓ Test pressure 360 lbs ✓

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.

CERTIFICATE WRITTEN 15-12-24

David C Barr 15/12/24

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

The amount of Entry Fee ... £ 2 : 0 : When applied for, 3/5 of Special ... £ 13 : 4 : 9-12-24 Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ 2 : 2 : When received, 9-12-24

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



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A.C. Glasgow 8/12/24

Certificate (if required) to be sent to The Surveyors are requested not to write on or below the space for Committee's Minute.