

# REPORT ON MACHINERY.

No. 44350.

Received at London Office - 4 FEB 1925

Date of writing Report 19 When handed in at Local Office 2.2.25 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 14.5.24 Last Survey 29-1-1925  
 Reg. Book. on the s.s. "RYDAL HALL" (Number of Visits 48)  
 Master Built at Glasgow By whom built Barclay Curle & Co. Ltd. (607) Tons Gross 5580 Net 3551  
 Engines made at Glasgow By whom made Barclay Curle & Co. Ltd. (607) when made 1925  
 Boilers made at Glasgow By whom made Barclay Curle & Co. Ltd. (607) when made 1925  
 Registered Horse Power Owners Galloway Line Ltd. Port belonging to Liverpool  
 Nom. Horse Power as per Section 28 474 417 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

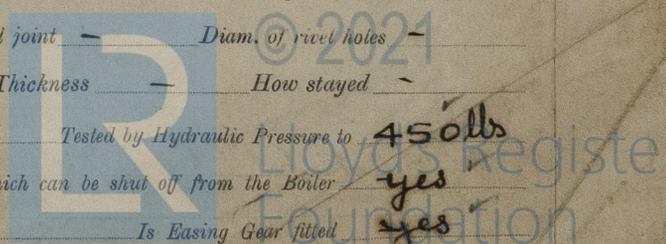
**ENGINES, &c.**—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 23 1/2 - 40 1/2 - 71 Length of Stroke 48 Revs. per minute 77 Dia. of Screw shaft as per rule 14.66 as fitted 15.5/8 Material of Steel  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes no oil gland 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 fits whole length If two liners are fitted, is the shaft lapped or protected between the liners - Length of stern bush 5-2 1/2 NO OIL GLAND  
 Dia. of Tunnel shaft as per rule 13.16 as fitted 13.3/8 Dia. of Crank shaft journals as per rule 13.81 as fitted 14 Dia. of Crank pin 14 1/2 Size of Crank webs 9 x 6 1/2 Dia. of thrust shaft under collars 14 Dia. of screw 18-3 Pitch of Screw 17-3 No. of Blades 4 State whether moveable yes Total surface 105 sq ft  
 No. of Feed pumps 2 Weir Diameter of ditto 7 1/2 Stroke 2 1/2 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2 Sizes of Pumps BALLAST GENERAL 9 x 8 1/2 - 12 7 1/2 x 5 x 9 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 4 c 3 In Holds, &c. N°1 - 2 c 3 ; N°2 - 2 c 3 1/2 ; N°3 - 2 c 2 1/2 ; N°4 - 2 c 3 ; N°5 - 1 c 3 ; Tunnel Well 1 c 2 1/2  
 No. of Bilge Injections 1 sizes 7 1/2 Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size 1 c 4 3/4  
 Are all the bilge suction pipes fitted with roses yes Are the MUD BOXES + STRAIGHT TAIL PIPES 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 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 Upper Deck.

**BOILERS, &c.**—(Letter for record S) Manufacturers of Steel The Steel Co. of Scotland Ltd., D. Colville Works Ltd., W. Beardmore & Co. Ltd., 258 Frodingham Iron & Steel Works.  
 Total Heating Surface of Boilers 6284 sq ft Is Forced Draft fitted no No. and Description of Boilers 2 Single Ended  
 Working Pressure 225 lbs/sq in Tested by hydraulic pressure to 388 lbs/sq in Date of test 10.10.24 No. of Certificate 16633  
 Can each boiler be worked separately yes Area of fire grate in each boiler 77 sq ft No. and Description of Safety Valves to each boiler two Cochran High Lift type Area of each valve 5.94 sq in Pressure to which they are adjusted 230 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 2-6 in Int. dia. of boilers 16-6 Length 12-6 Material of shell plates Steel  
 Thickness 1 9/16 Range of tensile strength 30/34 tons/sq in Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. LAP. long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 5/8 Pitch of rivets 10 7/8 Lap of plates or width of butt straps 23 3/4  
 Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by rules 225 lbs/sq in Size of manhole in shell 20 1/2 x 16 1/2  
 Size of compensating ring 37 1/2 x 33 1/2 x 1 9/16 flanged 4 3/8 to 16 x 1 1/8 handle No. and Description of Furnaces in each boiler 4 Dighton Material Steel Outside diameter 3-7 3/8  
 Length of plain part top bottom Thickness of plates bottom 1 1/16 Description of longitudinal joint weld No. of strengthening rings none  
 Working pressure of furnace by the rules 232 lbs/sq in Combustion chamber plates: Material Steel Thickness: Sides 21/32 Back 11/16 Top 21/32 Bottom 29/32  
 Pitch of stays to ditto: Sides 8 x 8 1/4 Back 8 3/4 x 8 1/4 Top 8 x 8 1/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 227 lbs/sq in  
 Material of stays Steel DIA. OVER THREADS Area at smallest part 1 5/8 x 1 3/4 Area supported by each stay 66 x 77 1/8 Working pressure by rules 230 + 257 End plates in steam space:  
 Material Steel Thickness 1 3/8 Pitch of stays 17 1/2 x 21 7/8 How are stays secured Nuts Working pressure by rules 226 lbs/sq in Material of stays Steel  
 DIA. OVER THREADS Area at smallest part 3 3/8 Area supported by each stay 382.8 Working pressure by rules 228 lbs/sq in Material of Front plates at bottom Steel  
 Thickness 61/64 Material of Lower back plate Steel Thickness 7/8 Greatest pitch of stays 14 5/16 x 8 1/4 Working pressure of plate by rules 230 lbs/sq in  
 Diameter of tubes 3 Pitch of tubes 4 1/8 x 4 1/4 Material of tube plates Steel Thickness: Front 61/64 Back 15/16 Mean pitch of stays 9.4  
 Pitch across wide water spaces 14 5/16 Working pressures by rules F. 226 lbs/sq in + B. 340 lbs/sq in Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 3/8 x 20 29/32 Length as per rule 40 3/8 Distance apart 8 1/4 Number and pitch of stays in each 4 c 8  
 Working pressure by rules 225 lbs/sq in 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 Smoke tube Date of Approval of Plan 22-8-24 Tested by Hydraulic Pressure to 450 lbs  
 Date of Test 29-11-24 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes  
 Diameter of Safety Valve 2 Pressure to which each is adjusted 233 Is Easing Gear fitted yes

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

JD



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

SPARE GEAR. State the articles supplied: - All as per rule requirements and in addition - one pair of crankpin bushes, one eccentric strap, one valve spindle, one air pump rod and two propeller blades.

The foregoing is a correct description,  
FOR BARCLAY, CURLE & CO., LTD.

John Alexander Manager

Manufacturer.

Dates of Survey while building  
During progress of work in shops - - 1924. May 14-21-29, June 5-24, July 15-16-30, Aug 1-5-6-12-22-27, Sept 5-16-23-28-30, Oct 8-10-17-20-22-27, Nov 5-6-10-19-24-28-29, Dec 9-11-24-28-26.  
During erection on board vessel - - - 1925. July 14-16-19-20-21-22-23-26-27-29  
Total No. of visits 48

Is the approved plan of main boiler forwarded herewith Yes

Is the approved plan of main boiler forwarded herewith Yes

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts - Cylinders 22-10-24 Slides 5-11-24 Covers 22-10-24 Pistons 5-11-24 Rods 10-11-24  
Connecting rods 10-11-24 Crank shaft 22-10-24 Thrust shaft 22-10-24 Tunnel shafts 22-10-24 Screw shaft 22-10-24 Propeller 6-11-24  
Stern tube 22-10-24 Steam pipes tested 19-11-24 5-16-1-25 Engine and boiler seatings 28-11-24 Engines holding down bolts 14-1-25  
Completion of pumping arrangements 29-1-25 Boilers fixed 14-1-25 Engines tried under steam 29-1-25  
Completion of fitting sea connections 28-11-24 Stern tube 6-11-24 Screw shaft and propeller 28-11-24  
Main boiler safety valves adjusted 21-1-25 Thickness of adjusting washers Port bl. - P 3/8" S 5/16" Stbd bl. - P 7/8" S 3/8"  
Material of Crank shaft Steel Identification Mark on Do. LLOYD'S N° 594 H.C.F. 22-10-24 Material of Thrust shaft Steel Identification Mark on Do. LLOYD'S N° 594 H.C.F. 22-10-24  
Material of Tunnel shafts Steel Identification Marks on Do. LLOYD'S N° 594 H.C.F. 22-10-24 Material of Screw shafts Steel Identification Marks on Do. LLOYD'S N° 594 H.C.F. 22-10-24  
Material of Steam Pipes Lapwelded wrought iron Test pressure 675 lbs per 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 No If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials and workmanship are good.  
The machinery has been constructed under special survey in accordance with the Rules and is eligible in our opinion for classification and the record  
+ LMC 1,25  
The engines and boilers have been properly fitted on board and tried under steam.

It is submitted that  
this vessel is eligible for  
**THE RECORD, + LMC 1.25. CL FD.**

See Sl. Rte 13/2/25.

J.W.D.  
4/2/25

H. Forster. L. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for.  
Special ... £ 87 : 11 : 0 3/2/25  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ : : : 25/2/25

Committee's Minute **GLASGOW - 3 FEB 1925**

Assigned + LMC 1,25

CERTIFICATE WRITTEN BR



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Lloyd's Register Foundation

Glasgow

a.b.  
2/2/25

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