

Rpt. 4.

# REPORT ON MACHINERY.

No. 45333.

Received at London Office 27 JAN 1926

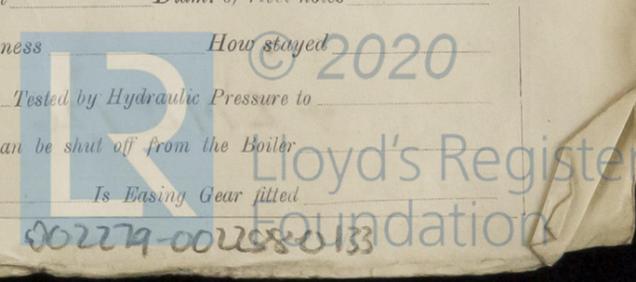
Date of writing Report 22-1-1926 When handed in at Local Office 23-1-1926 Port of Glasgow  
 No. in Survey held at Blydebank Date, First Survey 7-7-25 Last Survey 19<sup>th</sup> Jan 1926  
 Reg. Book. on the S.S. "Minard" (Number of Visits 27) Tons { Gross 241 Net 91  
 Master Built at Bowling By whom built Scott & Sons (154) When built 1926  
 Engines made at Blydebank By whom made Aitchison, Blair & Co. (154) when made 1926  
 Boilers made at Glasgow By whom made D. Rowan & Co. (333) when made 1926  
 Registered Horse Power Owners Blyde Cargo Steamers Ltd Port belonging to Glasgow  
 Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2  
 Dia. of Cylinders 17 1/2 - 36 Length of Stroke 24 Revs. per minute 122 Dia. of Screw shaft 7.7 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 yes 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 Cont liners Length of stern bush 32  
 Dia. of Tunnel shaft 6.95 Dia. of Crank shaft journals 7.3 Dia. of Crank pin 7 1/2 Size of Crank webs 14 1/2 x 5 Dia. of thrust shaft under collars 7 1/2 Dia. of screw 9-0 Pitch of Screw 10-6 No. of Blades 4 State whether moveable no Total surface 27.6 sq ft  
 No. of Feed pumps 2 Diameter of ditto 2 1/4 Stroke 11 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 2 1/4 Stroke 11 Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 1-8 Sizes of Pumps 5" x 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 1-2 In Holds, &c. 1 FOR 2", 1-APT 2", 1-TUNNEL 2"  
 No. of Bilge Injections 1 sizes 3 3/4 Connected to condenser for circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 1-2 1/2  
 Are all the bilge suction pipes fitted with roses yes Are the ~~in~~ 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 E.R. Cop platform

BOILERS, &c.—(Letter for record Glasgow Report N2 4518 Lt.) Manufacturers of Steel

Total Heating Surface of Boilers	Is Forced Draft fitted	No. and Description of Boilers
Working Pressure	Tested by hydraulic pressure to	Date of test
Can each boiler be worked separately	Area of fire grate in each boiler	No. and Description of Safety Valves to each boiler
<u>2-Spring Loaded</u>	Area of each valve <u>8.3</u>	Pressure to which they are adjusted <u>135</u>
Smallest distance between boilers or uptakes and bunkers or woodwork	Mean dia. of boilers	Length
<u>12</u>		
Thickness	Range of tensile strength	Are the shell plates welded or flanged
		Descrip. of riveting: cir. seams
long. 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
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

SUPERHEATER. 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 A DONKEY BOILER FITTED? *No* ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— *As per Rule requirements, 1- Propeller.*

The foregoing is a correct description,

**AITCHISON, BLAIR, LIMITED,**

*Arch Blair* Director

Manufacturer.

Dates of Survey while building	{	During progress of work in shops --	1925 July 7 Aug 3-20-25-27 Sept 8-15-22-30 Oct 7-9-21-28 Nov 6-12-24-26-28
		During erection on board vessel ---	Dec 1-4-8-10-16-22-23 1926 July 11-19
		Total No. of visits	27

Is the approved plan of main boiler forwarded herewith *No* ✓

Is the approved plan of donkey boiler forwarded herewith *None* ✓

Dates of Examination of principal parts—Cylinders 26-11-25 Slides 26-11-25 Covers 26-11-25 Pistons 26-11-26 Rods 26-11-26

Connecting rods 26-11-25 Crank shaft 15-9-25 Thrust shaft 12-11-25 Tunnel shafts 12-11-25 Screw shaft 12-11-25 Propeller 12-11-26

Stern tube 12-11-25. Steam pipes tested 23-12-25 Engine and boiler seatings 1-12-25 Engines holding down bolts 11-1-26

Completion of pumping arrangements 19-1-26 Boilers fixed 1-12-25 Engines tried under steam 19-1-26

Completion of fitting sea connections 1-12-25 Stern tube 1-12-25 Screw shaft and propeller 1-12-25

Main boiler safety valves adjusted 19-1-26 Thickness of adjusting washers  $8 \frac{11}{32} P. \frac{3}{8}$

Material of Crank shaft *S* Identification Mark on Do. 7422. Material of Thrust shaft *S* Identification Mark on Do. 393

Material of Tunnel shafts *S* Identification Marks on Do. 394, 405. Material of Screw shafts *S* Identification Marks on Do. 392.

Material of Steam Pipes *Copper* ✓ Test pressure 260 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 *No* ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines and boiler*

*of this vessel have been built under special survey in accordance with the approved plans and the Society's Rules and requirements, the materials and workmanship are good, they have been securely fitted on board, and satisfactorily tried under steam, and in my opinion are eligible for the record + L.M.C. 1-26.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 1-26. CL.

CERTIFICATE WRITTEN 3/2/26

The amount of Entry Fee ... £	2-0-0	When applied for.
Special $\frac{3}{5}$ ... £	13-1-0	23/1/26
Donkey Boiler Fee ... £	:	When received.
Travelling Expenses (if any) £	:	20/2/26

Committee's Minute GLASGOW 26 JAN 1926

Assigned + LMC 1,26

*J. S. Cairns*  
29/1/26

**Jas. S. Cairns,**  
Engineer Surveyor to Lloyd's Register of Shipping.



Certificate (if required) to be sent to the Registrar of Shipping, Glasgow, 23/1/26

The Surveyors are requested not to write on or below the space for Committee's Minute.