

# REPORT ON MACHINERY.

No. 45481

Received at London Office

17 MAR 1926

Date of writing Report Mar 13<sup>th</sup> 1926 When handed in at Local Office Mar 13<sup>th</sup> 1926 Port of GLASGOW

No. in Survey held at Troon Date, First Survey 30<sup>th</sup> Sep 1925 Last Survey March 9<sup>th</sup> 1926

Reg. Book. on the Machinery of S.S. GREBE. (Number of Visits 24)

Master Troon Built at Troon By whom built Ailsa S B Co Ltd (397) When built 1926

Engines made at Troon By whom made Ailsa S.B. Co Ltd N° 132 when made 1926

Boilers made at Glasgow By whom made Barclay Curle & Co Ltd (Ailsa 5) when made 1926

Registered Horse Power 175 Owners General Steam Nav. Co. Ltd Port belonging to London

Nom. Horse Power as per Section 28 175 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Tons } Gross 880  
 } Net 366

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

Dia. of Cylinders 16" 26 1/2" 43" Length of Stroke 33" Revs. per minute 94 Dia. of Screw shaft 9 1/2" Material of Iron  
 as per rule 9.51 as fitted 9 1/2" (screw shaft)

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 Close fit If two liners are fitted, is the shaft lapped or protected between the liners - Length of stern bush 3' 3"

Dia. of Tunnel shaft 8 1/2" as per rule 8.51 as fitted 8 1/2" Dia. of Crank shaft journals 8.93 as per rule 8.93 as fitted 9" Dia. of Crank pin 9" Size of Crank webs 14 1/4 x 5 1/8 Dia. of thrust shaft under collars 9" Dia. of screw 12 ft Pitch of Screw 12'-9" No. of Blades 4 State whether moceable No Total surface 44.8 sq ft

No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 14" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 14" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 5 Sizes of Pumps See over No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 @ 2 1/2" Stokehold 2 @ 2 1/2" In Holds, &c. No 1 Hold 2 @ 2 1/4"  
No 2 Hold 2 @ 2 1/2" No 3 Hold 2 @ 2 1/4" Tunnel Well 1 @ 2 1/2" Cofferdam 1 @ 2 1/4"

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump Eng. Room & Stokehold, straight tail pipes with mudboxes. Is a separate Donkey Suction fitted in Engine room & size Yes 3"

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible - 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 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 Forward Bilge 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 Yes Is it fitted with a watertight door Yes worked from Upper deck

**OILERS, &c.—(Letter for record S)** Manufacturers of Steel The Steel Company of Scotland Ltd.

Total Heating Surface of Boilers 3404 sq ft Is Forced Draft fitted No No. and Description of Boilers Two (S.E.) Marine

Working Pressure 200 lbs Tested by hydraulic pressure to 350 lbs Date of test 9-12-25 No. of Certificate 16999

Can each boiler be worked separately Yes Area of fire grate in each boiler 51 sq ft. No. and Description of Safety Valves to each boiler Two Spring-loaded Area of each valve 5.9 Pressure to which they are adjusted 200 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13" Mean dia. of boilers 13.9" Length 10'-6" Material of shell plates See

Thickness See Range of tensile strength See Are the shell plates welded or flanged See Descrip. of riveting: See rivets, circum. seams

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

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

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

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

Working pressure of furnace by the rules See Combustion chamber plates: Material See Thickness: Sides See Back See Top See Bottom See

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

Material of stays See Area at smallest part See Area supported by each stay See Working pressure by rules See End plates in steam space: See

Material See Thickness See Pitch of stays See How are stays secured See Working pressure by rules See Material of stays See

Area at smallest part See Area supported by each stay See Working pressure by rules See Material of Front plates at bottom See

Thickness See Material of Lower back plate See Thickness See Greatest pitch of stays See Working pressure of plate by rules See

Diameter of tubes See Pitch of tubes See Material of tube plates See Thickness: Front See Back See Mean pitch of stays See

Pitch across wide water spaces See Working pressures by rules See Girders to Chamber tops: Material See Depth and See

Thickness of girder at centre See Length as per rule See Distance apart See Number and pitch of stays in each See

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

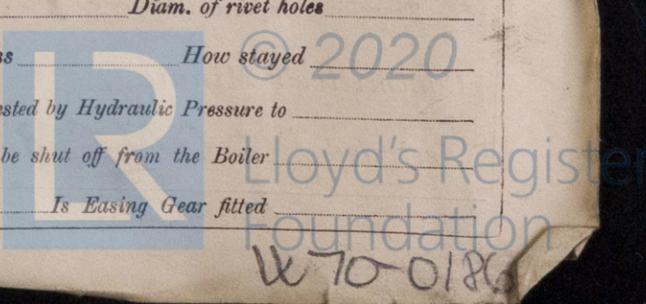
Diameter See Thickness of shell plates See Material See Description of longitudinal joint See Diam. of rivet holes See

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

**SUPERHEATER.** Type See Date of Approval of Plan See Tested by Hydraulic Pressure to See

Date of Test See Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler See

Diameter of Safety Valves See Pressure to which each is adjusted See Is Easing Gear fitted See



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? -

SPARE GEAR. State the articles supplied:— 2 Connecting rod top end bolts and nuts ✓  
2 bottom end bolts and nuts, 2 main bearing bolts ✓ 1 set of coupling bolts ✓  
1 set of feed and 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*  
ENGINEER MANAGER

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1925 Sep 30 Oct 6 9 16 29 Nov 2 23 24 Dec 15 17 24 29 (1926) Jan 12 14 18 21 25 29  
{ During erection on board vessel --- } Feb 4 11 16 25 26 Mar 9  
Total No. of visits 24 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 14-12-25 Slides 14-12-25 Covers 14-12-25 Pistons 24-12-25 Rods 14-12-25  
Connecting rods 14-12-25 Crank shaft 15-12-25 Thrust shaft 15-12-25 Tunnel shafts 12-1-25 Screw shaft 25-1-26 Propeller 25-1-26  
Stern tube 24-12-25 Steam pipes tested 11-2-26 Engine and boiler seatings 12-1-26 Engines holding down bolts 4-2-26  
Completion of pumping arrangements 25-2-26 Boilers fixed 4-2-26 Engines tried under steam 9-3-26  
Completion of fitting sea connections 12-1-26 Stern tube 12-1-26 Screw shaft and propeller 29-1-26  
Main boiler safety valves adjusted 26-2-26 Thickness of adjusting washers PBAV <sup>9"</sup>/<sub>32</sub> PBFV <sup>1"</sup>/<sub>4</sub> SBAV <sup>9"</sup>/<sub>32</sub> SBFV <sup>14"</sup>/<sub>64</sub>  
Material of Crank shaft S Identification Mark on Do. 15-12-25 Material of Thrust shaft S Identification Mark on Do. 15-12-25  
Material of Tunnel shafts S Identification Marks on Do. 12-1-26 Material of Screw shafts Iron Identification Marks on Do. 25-1-26  
Material of Steam Pipes S.D. Copper ✓ Test pressure 400 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. -)

Sizes of pumps. Ballast Pump. 4" x 4" x 8" General Service Pump. 6" x 4 1/4" x 6" Aux. Feed Pump 6" x 8 1/2" x 13"  
Aux Condenser Cir Pump 6" x 6" x 6". Harbour Feed Pump 4" x 6" x 4".

The engines have been constructed under Special Survey in accordance with the Rules of the Society. The workmanship and materials are of good quality. The engines and boilers have been securely fitted on board the vessel and tried under steam with satisfactory results.

It is submitted that this vessel is eligible for a record of  
✠ LMC 3-26.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 3.26. CL.

*David C Barr*  
18/3/26

The amount of Entry Fee ... £ 3 : 0 :  
3/5 of Special ... £ 26 : 5 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 3 : 18 :  
When applied for, 15/3/26  
When received, 18/3/26

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

Committee's Minute GLASGOW 16 MAR 1926

Assigned + LMC 3, 26

CERTIFICATE WRITTEN  
17.3.26



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Lloyd's Register  
Foundation

Rpt. 5a.

Date of writing

No. in Reg. Book.

Master

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