

## 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 Groon 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) Tons { Gross 880  
 Net 366

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

Engines made at Groon 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 145 Owners General Steam Nav. Co. Ltd Port belonging to London

Nom. Horse Power as per Section 28 145 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 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 1/2" 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" Dia. of Crank shaft journals 8 1/2" Dia. of Crank pin 9" Size of Crank webs 14 1/4" x 5 1/2" Dia. of thrust shaft under  
 collars 9" Dia. of screw 12 ft Pitch of Screw 12' - 9" No. of Blades 4 State whether moveable No Total surface 44.8 sq

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 pump Is a separate Donkey Suction fitted in Engine room & size Yes 3"  
Eng. Room & Stokehold, straight tail pipes with mudboxes.

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 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 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 13.9

Thickness Range of tensile strength Are the shell plates welded or flanged — Descrip. of riveting: circ 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 rivets 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 top Thickness of plates crown Description of longitudinal joint seams 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

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 Easing Gear fitted

Lloyd's Register  
Foundation  
W 70-0186



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

" " " donkey " " "

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 32 PBFV 4 SBAV 32 SBFV 14

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  
Engineer Surveyor to Lloyd's Register of Shipping.

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, 15/3/1926  
When received, 18/3/26

Committee's Minute GLASGOW 16 MAR 1926

Assigned + LMC 3, 26

CERTIFICATE WRITTEN  
17.3.26