

# REPORT ON MACHINERY.

No. 45047

Received at London Office 7 OCT 1925  
 of writing Report 30-9-1925 When handed in at Local Office 5/10/25 Port of Glasgow  
 in Survey held at Date, First Survey Last Survey 29-9-1925  
 Book. on the new steel S/S "ALOE"  
 Built at Port Glasgow By whom built R. & D. Duncan & Co Ltd S/S N° 365 When built 1925  
 nes made at Glasgow By whom made D. Rowan & Co Ltd (N° 810) when made 1925  
 ers made at Glasgow By whom made D. Rowan & Co Ltd (N° 810) when made 1925  
 stered Horse Power Owners Jones African Rly / Harbours & Marine Port belonging to Cape Town  
 Horse Power as per Section 28 477 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

INES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3  
 of Cylinders 27" 44" 73" Length of Stroke 48" Revs. per minute 66 Dia. of Screw shaft as per rule 14.708 Material of steel  
 as fitted 15.8" screw shaft  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes No O.G. Is the after end of the liner made water tight  
 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  
 are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-0"  
 of Tunnel shaft as per rule 13.2 Dia. of Crank shaft journals as per rule 13.86 Dia. of Crank pin 14.5" Size of Crank webs 22.5" x 8.5" Dia. of thrust shaft under  
 as fitted 13.8" 14" 14.5" 22.5" x 8.5"  
 of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes  
 of Bilge pumps 2 Diameter of ditto 4.5" Stroke 24" Can one be overhauled while the other is at work yes  
 of Donkey Engines 4 Sizes of Pumps 10" 12" 12" 20" 20" No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room 1 @ 2.5" & 3 @ 2.5" In Holds, &c. N° 1 hold - 2 @ 3" N° 2 hold - 2 @ 3.5"  
 uptank - 2 @ 2.5" N° 3 hold - 3 @ 3.5" Tunnel well - 1 @ 2.5"  
 of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size yes 4.5"  
 mud boxes & straight tail pipes (Bilge injection)  
 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 none  
 all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both  
 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  
 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  
 that pipes are carried through the bunkers forward hold suction How are they protected under timber boards  
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes  
 the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper deck

ILERS, &c.—(Letter for record (S)) Manufacturers of Steel The Port Talbot Steel Co & the Llanarkshire Steel Co  
 tal Heating Surface of Boilers 6735 sq ft Is Forced Draft fitted yes No. and Description of Boilers Three single ended  
 orking Pressure 180 Tested by hydraulic pressure to 320 Date of test 20-8-25 No. of Certificate 16912  
 in each boiler be worked separately yes Area of fire grate in each boiler 39 sq ft No. and Description of Safety Valves to  
 ch boiler 2 direct spring Area of each valve 8.29 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
 smallest distance between boilers or uptakes and bunkers or woodwork 2'-3" Mean dia. of boilers 14'-6" Length 11'-6" Material of shell plates Steel  
 thickness 13.16 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR.  
 8-63 g. seams DBS. TR Diameter of rivet holes in long. seams 1.2" Pitch of rivets 8.23" Lap of plates or width of butt straps 18.5"  
 or centages of strength of longitudinal joint rivets 91 Working pressure of shell by rules 182 Size of manhole in shell 19.5" x 15.5"  
 flanged to 16" x 12" plate 85.6 No. and Description of Furnaces in each boiler 3 Brighton Road Material Steel Outside diameter 43.27"  
 size of compensating ring 9" x 1.16 Com 89.5  
 length of plain part top Thickness of plates crown 35" Description of longitudinal joint welded No. of strengthening rings  
 bottom 64"  
 Working pressure of furnace by the rules 180 Combustion chamber plates: Material Steel Thickness: Sides 23.32" Back 21.52" Top 23.32" Bottom 23.32"  
 Pitch of stays to ditto: Sides 9.2" x 10.4" Back 9.2" x 8.2" Top 9.2" x 10.4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181  
 Material of stays steel Area at smallest part 2.070" Area supported by each stay 99.50" Working pressure by rules 182 End plates in steam space:  
 Material steel Thickness 1.75" Pitch of stays 20" x 19.2" How are stays secured D.N. Working pressure by rules 180 Material of stays steel  
 Area at smallest part 5.940" Area supported by each stay 3500" Working pressure by rules 181 Material of Front plates at bottom steel  
 Thickness 3.2" Material of Lower back plate steel Thickness 3.2" Greatest pitch of stays 13.38" x 8.2" Working pressure of plate by rules 181  
 Diameter of tubes 2.2" Pitch of tubes 33.32" x 3.5" Material of tube plates steel Thickness: Front 21.52" Back 23.32" Mean pitch of stays 10.64"  
 Pitch across wide water spaces 13.38" x 7.2" Working pressures by rules 207 Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 2 @ 8" x 8" Length as per rule 33.8" Distance apart 9.2" Number and pitch of stays in each 2 @ 10.5"  
 Working pressure by rules 188 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 none 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

W116 - 0022



IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— As per Rules and in addition - one eccentric strap, one tailshaft and two propeller blades.

The foregoing is a correct description,

For David Rowan & Co Ltd  
Archd H. Grierson Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1924 Aug 22-27. Sept 5-12-23. Oct 7-9-21. Nov 13-24-26. Dec 2-5-12.  
During erection on board vessel --- 1925 July 12-13. Aug 2-3-9. Mar 3-24. Apr 8-17-24. May 1-22. June 2-8-16-23. July 16-30-31.  
Total No. of visits 58 Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—Cylinders 26-11-24 Slides 20-8-25 Covers 2-12-24 Pistons 17-8-25 Rods 17-8-25  
Connecting rods 31-7-25 Crank shaft 13-8-25 Thrust shaft 19-8-25 Tunnel shafts 16-6-25 Screw shaft 21-8-25 Propeller 10-9-25  
Stern tube 31-7-25 Steam pipes tested 25-8-11-9-25 Engine and boiler seatings 8-9-25 Engines holding down bolts 18-9-25  
Completion of pumping arrangements 21-9-25 Boilers fixed 18-9-25 Engines tried under steam 29-9-25  
Completion of fitting sea connections GRK Stern tube GRK Screw shaft and propeller GRK Blades GRK  
Main boiler safety valves adjusted 22-9-25 Thickness of adjusting washers Port 1 1/2" 5 1/16" 1 1/2" 5 1/16" 1 1/2" 5 1/16" Starboard 1 1/2" 5 1/16" 1 1/2" 5 1/16" 1 1/2" 5 1/16"  
Material of Crank shaft Steel Identification Mark on Do. LLOYD'S N°810 13-8-25 H.Y.B. Material of Thrust shaft Steel Identification Mark on Do. LLOYD'S N°680 13-8-25 H.Y.B.  
Material of Tunnel shafts Steel Identification Marks on Do. LLOYD'S 810 16-6-25 L.C.D. Material of Screw shafts Steel Identification Marks on Do. LLOYD'S N°246 21-8-25 L.C.D.  
Material of Steam Pipes Lapwelded steel Test pressure 540 lbs Spaced LLOYD'S N°464 24-9-25 L.C.D.  
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, satisfactorily fitted in the vessel tried under steam and found good. It is eligible in my opinion for Classification and the Record + LMC 9.25.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 9.25. CL. FD.

CMS  
8/16/25

The amount of Entry Fee ... £ 5 : :  
Special ... £ 96 : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 5/10/25  
When received, 10/10/25

Sch Davis  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6-11-25

Assigned + LMC 9.25