

# REPORT ON MACHINERY.

No. 43597  
WED. JUN. 25 1924

Received at Office

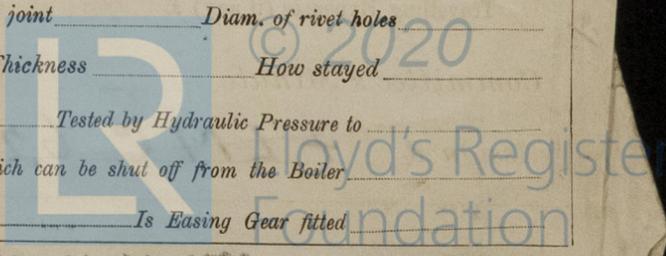
Date of writing Report 1924 When handed in at Local Office 16.6.24 Port of Glasgow  
 No. in Survey held at Clydebank Date, First Survey 2<sup>nd</sup> Feb 1920 Last Survey 11<sup>th</sup> June 1924  
 Reg. Book. on the S/S "SAINT KENNETH" (Number of Visits 43)  
 Master Bowling Built at Bowling By whom built Scott Sons No. 294 When built 1924  
 Engines made at Clydebank By whom made Ditchison, Blair & Co. No. 144 when made 1924  
 Boilers made at Glasgow By whom made Bunsuir & Jackson No. B149 when made 1924  
 Registered Horse Power \_\_\_\_\_ Owners J. Aitken & Co. R. Aitken Port belonging to Dublin  
 Nom. Horse Power as per Section 28 116 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

**ENGINES, &c.**—Description of Engines Triple expansion steam reciprocating No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 5" 25 1/2" 4" Length of Stroke 30" Revs. per minute 95 Dia. of Screw shaft 8 1/16" Material of Steel  
 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 no If the liner is in more than one length are the joints burned no 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 no If two  
 liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 2' 10 5/8" no oil gland  
 Dia. of Tunnel shaft 7.77" Dia. of Crank shaft journals 8 1/16" Dia. of Crank pin 8 1/2" Size of Crank webs 5 3/8" x 5 1/2" Dia. of thrust shaft under  
 collars 8 1/4" Dia. of screw 10' 0" Pitch of Screw 14' 0" No. of Blades 4 State whether moceable no Total surface 34.5  
 No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 2 1/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2 Sizes of Pumps one 6" x 4 1/4" x 6", one 8" x 9" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room three of 2 1/2" bore In Hold, &c. two of 2 1/4" bore  
 No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size one 2 1/4"  
 Are 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 no  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves and cocks  
 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 above  
 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 hold suction How are they protected 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 no Is it fitted with a watertight door no worked from no

**BOILERS, &c.**—(Letter for record (S)) Manufacturers of Steel \_\_\_\_\_  
 Total Heating Surface of Boilers 2018 Is Forced Draft fitted no No. and Description of Boilers 1 SB. one cylindrical marine  
 Working Pressure 180 lbs Tested by hydraulic pressure to \_\_\_\_\_ Date of test 21. 11. 23 No. of Certificate 16370  
 Can each boiler be worked separately yes Area of fire grate in each boiler \_\_\_\_\_ No. and Description of Safety Valves to  
 each boiler 2 Spring loaded Area of each valve 7 1/4" Pressure to which they are adjusted 180 lbs Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork will clear Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates  
 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 1 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 \_\_\_\_\_ 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 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 \_\_\_\_\_

If not, state whether, and when, one will be sent



004029-004036-0086

IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *2 top end bolts and nuts, 2 bottom end bolts and nuts, 2 main bearing bolts, one set of coupling bolts, one set each of feed and bilge pump valves, one main check valve, one c.i. propeller, quantity of assorted bolts and nuts, iron or steel of various sizes.*

The foregoing is a correct description,

FOR AND ON BEHALF OF

**AITCHISON, BLAIR, LIMITED.**

*Arch Blair*

Manufacturer.

Dates of Survey while building	{	During progress of work in shops --	1920 Feb 2-12 Mar 22 Apr 9-21 May 10 Jul 1-12 29 1921 Mar 22 Apr 20-26 May 5-18 30 Jun 3-24 Oct 4 Dec 19 1922
		During erection on board vessel --	Jun 7-1923 Oct 19 Jun 5-13 28 Jul 3 Aug 7 Sep 7 Oct 10-31 Nov 27 Dec 5-28 1924 Jan 8 Feb 6 Mar 19-28 Apr 2-7 24-28
		Total No. of visits	43

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *23/2/20* Slides *23/2/20* Covers *23/2/20* Pistons *2/3/20* Rods *23/2/20*

Connecting rods *23/2/20* Crank shaft *2/3/20* Thrust shaft *25/3/24* Tunnel shafts  Screw shaft *7/8/23* Propeller *6/2/24*

Stern tube *25/3/24* Steam pipes tested *18/4/24* Engine and boiler seatings *25/3/24* Engines holding down bolts *2/4/24*

Completion of pumping arrangements *28/4/24* Boilers fixed *2/4/24* Engines tried under steam *11/6/24*

Completion of fitting sea connections *25/3/24* Stern tube *25/3/24* Screw shaft and propeller *25/3/24*

Main boiler safety valves adjusted *24/4/24* Thickness of adjusting washers *1 15/32"*

Material of Crank shaft *Steel* Identification Mark on Do. *130. TM.* Material of Thrust shaft *Steel* Identification Mark on Do. *635*

Material of Tunnel shafts  Identification Marks on Do.  Material of Screw shaft *Steel* Identification Marks on Do. *590*

Material of Steam Pipes *Copper* Test pressure *360 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 machinery of this vessel has been built under Survey and the materials tested in accordance with the rules of this Society. The materials and workmanship, as far as can be seen, are sound and good and the engines and boiler have been properly fitted on board and tried under steam. The machinery of this vessel is eligible in my opinion to have the record of L.M.C. 6-24 entered in the Register Book. See Glasgow report n° 43174 on the boiler.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.24. CL.

*Harry Clarke*  
26/6/24  
Engineer Surveyor to Lloyd's Register of Shipping

*A. Campbell*  
Engineer Surveyor to Lloyd's Register of Shipping

The amount of Entry Fee ... £	3 : 0	When applied for,	
Special <i>3/5 of total</i>	17 : 8	17.6	24
Donkey Boiler Fee ... £	:	When received,	
Travelling Expenses (if any) £	:	19.6	24

Committee's Minute **GLASGOW** 24 JUN 1924

Assigned + LMC 6.24.



GLASGOW

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

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