

Rpt. 4.

# REPORT ON MACHINERY.

No. 82891

Date of writing Report 19 When handed in at Local Office 24 OCT 1921 Port of Liverpool Received at London Office WED. 26 OCT. 1921

No. in Survey held at Liverpool & Garston Date, First Survey 14<sup>th</sup> Oct/1920 Last Survey 21<sup>st</sup> Oct. 1921  
Reg. Book. 78263 on the s/s Carpis (Number of Visits 29)

Master Built at Lancaster By whom built H. & C. Grayson, Ltd. Tons { Gross 2436  
Net 1508  
When built 1921

Engines made at Glasgow By whom made McAlister & Baxter when made 1921  
Boilers made at Birkenhead By whom made Bammell, Laird & Co. Ltd. when made 1921

Registered Horse Power 188 Owners MacAndrews & Co. Ltd. Port belonging to London

Nom. Horse Power as per Section 28 252 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

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

Dia. of Cylinders Length of Stroke Revs. per minute 95 Dia. of Screw shaft as per rule 11.75" Material of screw shaft Steel  
as fitted 12"

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight  
in the propeller boss 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 If two  
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush

Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under  
as fitted collars Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface

No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Donkey Engines 3 Sizes of Pumps 8" x 8" x 8", 9" x 6" x 10", 8" x 6" x 12" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 3 - 2 1/2" In Holds, &c. Fore Hold 2-2 1/2", After Hold 4-2 1/2", Tunnel 1-2 1/2"

No. of Bilge Injections One sizes 8" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes - 3 1/2"  
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 None  
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 None How are they protected Yes  
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 Lp Platform of Engine Room

BOILERS, &c.—(Letter for record ) 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 No. of Certificate  
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to  
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear  
Smallest distance between boilers or uptakes and bunkers or woodwork 1' 8" 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 rivets Working pressure of shell by rules Size of manhole in shell  
plate  
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 No. of strengthening rings  
bottom  
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



IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

SPARE GEAR. State the articles supplied:— 1 CI propeller, 2 connecting rod top end and 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, 1 set of coupling bolts and nuts, 1 set each feed and bilge pump valves, main and donkey check valves, joint ring studs and nuts, assorted bolts and nuts, assorted iron and brass studs, 2 safety valve springs, condenser tubes and ferrules, boiler tubes and stoppers, gauge glasses, iron of various sizes.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

(During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

1920. Oct. 14. 26. Nov. 7. 19. Dec. 9. 17. 1921. Jan. 6. 21. Feb. 11. 22. Mar. 21. 22. 24. Apr. 4. 22. 27. May. 9. 10. 19. June 7. 23. July. 13. Aug. 7. 24. Sep. 14. Oct. 7. 17. 18. 21. 29.

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested 22/3/21 Engine and boiler seatings 21/3/21 Engines holding down bolts 27/4/21

Completion of pumping arrangements 10/5/21 Boilers fixed 27/4/21 Engines tried under steam 10/5/21

Completion of fitting sea connections 6/1/21 Stern tube 6/1/21 Screw shaft and propeller 6/1/21

Main boiler safety valves adjusted 9/5/21 Thickness of adjusting washers Port - 5. 1/2 P. 5/8 donkey 5/8 A 7/8

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Copper Test pressure 360 lbs

Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes

Have the requirements of Section 49 of the Rules been complied with Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel s/s "Selva" &c.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines and Boilers of this vessel have been securely fitted on board and when tried under working conditions were found satisfactory in every respect.

In my opinion, the Machinery is eligible to be classed with record in the Register Book of LMC 10.21

It is submitted that this vessel is eligible for

THE RECORD. F.L.M.C. - 10.21. C.L.

Fitted for Oil Fuel 10.21. F.P. above 150°F.

L.Y.  
29/10/21

MACHINERY CERTIFICATE  
WRITTEN 4/11/21  
(dated 26/10/21)

The amount of Entry Fee ... £ : : When applied for,

Special (45.) ... £ 12-11-3

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : :

24 OCT 1921

29.10.21

25 OCT 1921

Committee's Minute LIVERPOOL.

Assigned

L N C 10.21.

When fee is paid

B. G. Oxford

Engineer Surveyor to Lloyd's Register of Shipping.



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