

## REPORT ON MACHINERY.

No. 10806.

Date of writing Report 9-10-1920 When handed in at Local Office 16<sup>th</sup> Dec. 1920 Port of Southampton  
No. in Survey held at Gosport Date, First Survey 23<sup>rd</sup> Dec. 1919 Last Survey 30<sup>th</sup> Sept. 1920  
Reg. Book. on the S.S. "SOJOURNER." (Number of Visits 13)  
Muster Built at Gosport By whom built Camper & Nicholsons' Ltd Tons Gross 435 Net 206.2  
Engines made at Clydebank By whom made Fitchison Blair & Co. Ltd when made 1919  
Boilers made at Glasgow By whom made Firth Shipbuilding & Eng. Co. Ltd when made 1919  
Registered Horse Power Owners Robinson, Brown & Co. Ltd Port belonging to Newcastle-on-Tyne  
Nom. Horse Power as per Section 28 82 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

## ENGINES, &amp;c.—Description of Engines

No. of Cylinders No. of Cranks  
Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Material of screw shaft  
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 as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under 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 2 Sizes of Pumps 5"x3½"x6" & 6"x6"x6" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 3-2" In Holds, &c. Main Hold 2-2¼" Fore Peak 1-3"

No. of Bilge Injections 1 sizes 4½" Connected to condenser, or to circulating pump C. Pump Is a separate Donkey Suction fitted in Engine room & size yes 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  
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 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 Fore Suctions How are they protected Fitted under ceiling  
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 None Is it fitted with a watertight door worked from

## BOILERS, &amp;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 2 Spring Loaded Area of each valve 7.06 Pressure to which they are adjusted 135 lbs. Are they fitted with easing gear yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 12" 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 plate 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 bottom 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 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?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

For CAMPER & NICHOLSON, LIMITED.

*C. Mackintosh* ~~Manufacturer~~ Installing Contractors

Dates of Survey while building { During progress of work in shops -- 23 27 17 12 12 7 27 6.8.9.10.28.30  
During erection on board vessel --- 12.1919. 1, 2, 3, 5, 8, 9 1920.  
Total No. of visits 13. Is the approved plan of main boiler forwarded herewith yes

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 28-9-20 Engine and boiler seatings 23-12-19 Engines holding down bolts 6-9-20  
Completion of pumping arrangements 6-9-20 Boilers fixed 17-2-20 Engines tried under steam 30-9-20  
Completion of fitting sea connections 7-5-20 Stern tube 7-5-20 Screw shaft and propeller 7-5-20  
Main boiler safety valves adjusted 30-9-20 Thickness of adjusting washers P:- 5/16" S:- 1/4"  
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 260 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 and Boilers of this vessel have been efficiently fitted on board, and on trial proved satisfactory.

The Spare Gear is in accordance with the rule requirements, and the machinery is eligible in my opinion to have notation + L.M.C. 9.20.

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 9.20

Roll  
23/12/20

RRR

The amount of Entry Fee ... £ : : When applied for,  
Special ... £ 2 : 6 : 8 16/12/1920  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : 15-1-1920

Committee's Minute

Assigned

FRI. 24 DEC. 1920

+ L.M.C. 9.20

Engine Surveyor to Lloyd's Register of Shipping.

TUE. JAN. 18 1921

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Lloyd's Register  
Foundation