

# REPORT ON MACHINERY.

No. 10806.

Received at London Office

FRI. DEC. 17 1920

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 Campbell & Nicholson's Ltd Tons { Gross 435  
 Engines made at Clydebank By whom made Fitchison Blair Ltd Net 206.2  
 Boilers made at Glasgow By whom made Firth Shipbuilding & Eng. Co. Ltd when made 1919  
 Registered Horse Power Owners Robinson, Brown & Co. Ltd when made 1919 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, &c.—Description of Engines

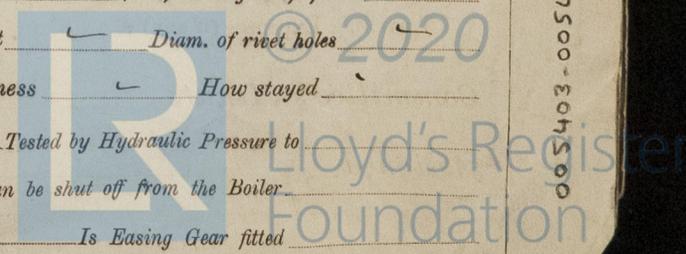
No. of Cylinders  No. of Cranks   
 Dia. of Cylinders  Length of Stroke  Revs. per minute  Dia. of Screw shaft  Material of screw shaft   
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube  Is the after end of the liner made water tight in the propeller boss   
 If 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  Dia. of Crank shaft journals  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"x3 1/2"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 2-2 1/4" Fore Peak. 1-3"

No. of Bilge Injections 1 sizes 4 1/2" 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 For. 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, &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 sq" 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  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  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

UPERHEATER. 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



005403-005411-0164

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 & NICHOLSONS, LIMITED.

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

|                                |                                                                                                         |                       |                 |                 |                    |                |                 |                            |       |                                                                   |                                                        |
|--------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------|-----------------|-----------------|--------------------|----------------|-----------------|----------------------------|-------|-------------------------------------------------------------------|--------------------------------------------------------|
| Dates of Survey while building | { During progress of work in shops --<br>{ During erection on board vessel ---<br>{ Total No. of visits | $\frac{23}{12.1919.}$ | $\frac{27}{1,}$ | $\frac{17}{2,}$ | $\frac{12.22}{3,}$ | $\frac{7}{5,}$ | $\frac{27}{8,}$ | $\frac{6.8.9.10.28.30}{9}$ | 1920. | Is the approved plan of main boiler forwarded herewith <i>yes</i> |                                                        |
|                                |                                                                                                         |                       |                 |                 |                    |                |                 |                            |       |                                                                   | " " " donkey " " " <input checked="" type="checkbox"/> |
|                                |                                                                                                         |                       |                 |                 |                    |                |                 |                            |       |                                                                   | " " " " " " <input checked="" type="checkbox"/>        |

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

*Bell*  
 23/12/20

*ARR*

|                                |   |     |                   |
|--------------------------------|---|-----|-------------------|
| The amount of Entry Fee ... £  | : | :   | When applied for, |
| Special ... £                  | 2 | 6:8 | 16/12/1920        |
| Donkey Boiler Fee ... £        | : | :   | When received,    |
| Travelling Expenses (if any) £ | : | :   | 15-1-1921         |

*C. H. Boyle*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned + L.M.C. 9.20

CERTIFICATE WRITE. TUE. JAN. 18 1921  
 Lloyd's Register Foundation

Certificate (if required) to be sent to  
 The Surveyors are requested not to write on or below the space for Committee's Minute.