

# REPORT ON MACHINERY.

No. 80399 London

TUE - 5 FEB. 1918

Registered at London Office

Port of London 4 Bristol  
Date, First Survey 25<sup>th</sup> June Last Survey 2<sup>nd</sup> February 1918  
(Number of Visits 6 + 4)

Survey held at Newbury & Appledon  
g. Book. 94 on the 5/5 Orchis  
Built at Appledon By whom built P. Cock & Son Tons 482  
When built 1918

Engines made at Newbury By whom made Plenty & Son Ltd when made 1918  
Machinery made at Middlebury By whom made Ridg Bros Ltd when made 1918  
Registered Horse Power \_\_\_\_\_ Owners P. Cock & Son Port belonging to Bedford

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no  
Horse Power as per Section 28 72

Engines, &c. — Description of Engines Triple Surface condensing No. of Cylinders 3 No. of Cranks 3  
No. of Cylinders 13-22-34 Length of Stroke 22 1/2 Revs. per minute 120 Dia. of Screw shaft 7 3/8 Material of screw shaft Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube two liners Is the after end of the liner made water tight  
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 yes

Are the shafts fitted, is the shaft lapped or protected between the liners Lapped & painted Length of stern bush 2.5 1/2  
No. of Tunnel shaft 6 3/4 Dia. of Crank shaft journals 6 3/4 Dia. of Crank pin 6 3/4 Size of Crank webs 12 1/4 Dia. of thrust shaft under

No. of Blades 4 State whether moveable Yes Total surface 26 sq ft  
No. of Feed pumps one Diameter of ditto 3 Stroke 10 Can one be overhauled while the other is at work no

No. of Bilge pumps one Diameter of ditto 3 Stroke 10 Can one be overhauled while the other is at work no  
No. of Donkey Engines one Sizes of Pumps 4 1/2 x 2 3/4 x 4 1/2 Duplex No. and size of Suctions connected to both Bilge and Donkey pumps  
In Holds, &c. Two 2"

Are 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 the connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

Are the Discharge Pipes above or below the deep water line Above  
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

How are they protected Carried under ceiling  
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is it fitted with a watertight door no worked from \_\_\_\_\_  
Manufacturers of Steel John Spencer & Sons

Is Forced Draft fitted no No. and Description of Boilers One Single ended  
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 10-8-17 No. of Certificate 5791

Can the boiler be worked separately no Area of fire grate in each boiler 1271 sq ft No. and Description of Safety Valves to  
each boiler Two Spring loaded Area of each valve 4.91 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Distance between boilers or uptakes and bunkers on woodwork 18" Mean dia. of boilers 12-0 Length 11-0 Material of shell plates Steel  
Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 27 lap

Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7 7/8 Lap of plates or width of butt straps 1 5/8 x 7/8  
Working pressure of shell by rules 180 Size of manhole in shell 19 x 15

No. and Description of Furnaces in each boiler 2 Morrison Material Steel Outside diameter 24 1/4  
Description of longitudinal joint Weld No. of strengthening rings 0

Working pressure of furnace by the rules 195 Combustion chamber plates: Material Steel Thickness: Sides 7/8 Back 2 1/8 Top 7/8 Bottom 1 1/16  
If stays are fitted with nuts or riveted heads nuts Working pressure by rules 185

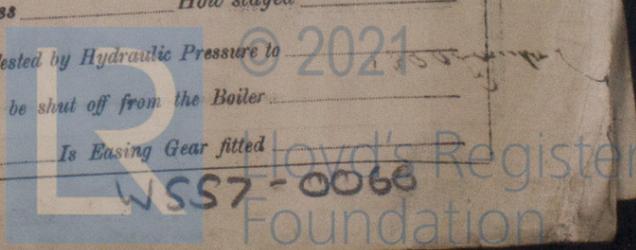
Area supported by each stay 72 Working pressure by rules 195 End plates in steam space:  
Thickness 1" Pitch of stays 16 x 15 1/2 How are stays secured nuts Working pressure by rules 188 Material of stays Steel

Area supported by each stay 261 Working pressure by rules 18 Material of Front plates at bottom Steel  
Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14 x 9 3/8 Working pressure of plate by rules 238

Material of tube plates Steel Thickness: Front 1 Back 1 3/8 Mean pitch of stays 1 1/16  
Working pressures by rules 181 Girders to Chamber tops: Material Steel Depth and  
Distance apart 8" Number and pitch of stays in each 3 of 8 ft

Steam dome: description of joint to shell none % of strength of joint \_\_\_\_\_  
Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_  
Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

HEATER. Type none Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_  
Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_  
Is Easing Gear fitted \_\_\_\_\_  
Pressure to which each is adjusted \_\_\_\_\_



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

*2 top end bolts, 2 bottom end bolts, 2 main bearing bolts, 1 set coupling  
feed & bilge pump valves, 1 set piston rings for each cylinder, 2 condenser tubes & tubes  
bolts, nuts & rows assorted*

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

*December 6<sup>th</sup> 1917, 13<sup>th</sup> Jan 2<sup>nd</sup> 1918, 27<sup>th</sup> Feb 2<sup>nd</sup> 1918* 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 *6-1-18*

Stern tube Steam pipes tested *14-1-18* Engine and boiler seatings *6-12-17* Engines holding down bolts *2-1-18*

Completion of pumping arrangements *2-1-18* Boilers fixed *6-12-17* Engines tried under steam *2-1-18*

Completion of fitting sea connections *6-12-17* Stern tube *6-12-17* Screw shaft and propeller *6-12-17*

Main boiler safety valves adjusted *2-1-18* Thickness of adjusting washers *P 3/8 5/16*

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 *300 lb* *by T.P.B.*

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

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

*This machinery has now been fitted on the above vessel, the  
Main Boiler Safety Valve adjusted under steam to the above pressure &  
engines tried under steam.  
The vessel is eligible in my opinion for record # L.M.C. 2-18*

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 2.18.

Certificate (if required) to be sent to

The amount of Entry Fee ...	£ 0 : 0 : 0	When applied for,
Special ...	£ 7 : 4 : 0	19
Donkey Boiler Fee <i>Dristol 1/2</i>	£ 3 : 12 : 0	When received,
Travelling Expenses (if any) <i>attending engine approval</i>	£ 6 : 9 : 3	

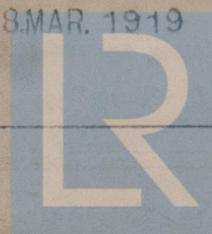
Committee's Minute

Assigned

*ERI. 15 FEB 1918 + L.M.C. 2.18*

Engineer Surveyor to Lloyd's Register of Shipping

*G.L. Hayden Toque*



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MACHINE WRITTEN