

# REPORT ON MACHINERY.

No. 84545.

Received at London Office 6 AUG 1921

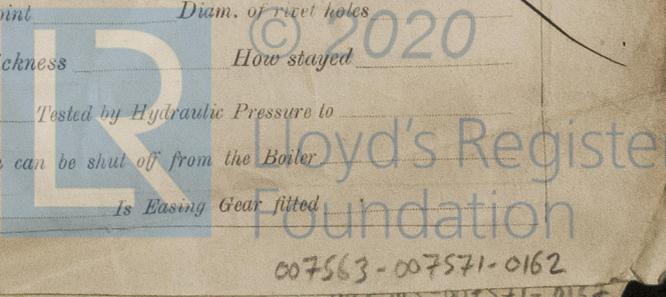
Date of writing Report **6 AUG 1921** When handed in at Local Office **6 AUG 1921** Port of **London**  
 No. in Survey held at **Faversham** Date, First Survey **14<sup>th</sup> FEBRUARY** Last Survey **27<sup>th</sup> July 1921**  
 Reg. Book. **37357** on the **Motor Tug "Flanchford"** (Number of Visits **7**)  
 Master **Faversham** Built at **Faversham** By whom built **J. Pollock Sons No 24** Tons <sup>Gross</sup> **1921**  
 Engines made at **Stockholm** By whom made **J & S Bolinders No 24** when made **1921**  
 Boilers made at **Stockholm** By whom made **J & S Bolinders No 24** when made **1921**  
 Registered Horse Power **320 B.H.P.** Owners **A. J. Humphrey & H. Lucy, Jr.** Port belonging to **London**  
 Nom. Horse Power as per Section 28 **91.** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

**ENGINES, &c.**—Description of Engines **Bolinders. 2.5.C.S.A.** No. of Cylinders **4** No. of Cranks **4**  
 Dia. of Cylinders **16 1/2"** Length of Stroke **12 5/8"** Revs. per minute **225** Dia. of Screw shaft **3 1/8"** Material of screw shaft **Steel**  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube **No** Is the after end of the liner made water tight in the propeller boss **Yes**  
 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 **2-5 3/8"**  
 Dia. of Tunnel shaft **7"** Dia. of Crank shaft journals **7"** Dia. of Crank pin **7"** Size of Crank webs **7"** Dia. of thrust shaft under collars **7"** Dia. of screw **7 1/8"** Pitch of Screw **61"** No. of Blades **3** State whether moveable **No** Total surface **15 1/2"**  
 No. of Feed pumps **1** Diameter of ditto **110** Stroke **130** Can one be overhauled while the other is at work **No**  
 No. of Bilge pumps **1** Diameter of ditto **110** Stroke **130** Can one be overhauled while the other is at work **No**  
 No. of Donkey Engines **1** Sizes of Pumps **Rotary** No. and size of Suctions connected to both Bilge and Donkey pumps **2-2"**  
 In Engine Room **2-2"** In Holds, &c. **2-2"**  
 No. of Bilge Injections **1** sizes **2"** Connected to condenser, or to circulating pump **No** 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 **Yes**  
 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 stakehold 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 **No**  
 What pipes are carried through the bunkers **No** How are they protected **No**  
 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 **No** worked from **No**

**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
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	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	No. of strengthening rings
Thickness of plates	Description of longitudinal joint	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
End plates in steam space:	Area supported by each stay	Working pressure by rules
Material 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
% of strength of joint	Diameter	Thickness of shell plates
Material	Description of longitudinal joint	Diam. of rivet holes
How stayed	Pitch of rivets	Working pressure of shell by rules
Crown plates	Thickness	

**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 \_\_\_\_\_



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *Two crank pin bolts, two gudgeon pin bolts, set of coupling bolts, ledge pump valves, cylinder cover bolt, bolts for eccentric rod & tilting arm - all bolts with nuts, piston rings, fuel valves, etc. Two main bearing bolts with nuts.*

The foregoing is a correct description,  
for and on behalf of

JAMES POLLOCK SONS & Co., Ltd.,

*Ronald Gill* Manufacturer.

Dates of Survey while building: *1921 FEB 14 APR 27 MAY 6 JUNE 9 23 JULY 6 27*  
During progress of work in shops -- *7*  
During erection on board vessel -- *7*  
Total No. of visits *7*

Is the approved plan of main boiler forwarded herewith *✓*

Is the approved plan of donkey boiler forwarded herewith *✓*

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 *✓* Engine and boiler seatings *27/4/21* Engines holding down bolts *9/6/21*  
Completion of pumping arrangements *23/6/21* Boilers fixed *✓* Engines tried under steam *23/6/21*  
Completion of fitting sea connections *6/5/21* Stern tube *6/5/21* Screw shaft and propeller *6/5/21*  
Main boiler safety valve adjusted *✓* Thickness of adjusting washers *✓*  
Material of Crank shaft *steel* Identification Mark on Do. *✓* Material of Thrust shaft *✓* Identification Mark on Do. *✓*  
Material of Tunnel shafts *steel* Identification Marks on Do. *A. B. F.* Material of Screw shafts *steel* Identification Marks on Do. *A. B. F.*  
Material of Steam Pipes *✓* Test pressure *✓*

Is an installation fitted for burning oil fuel *Oil Engine* 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 *Standard Engine*

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

*The engines described Stockholm Report 2-2010 have been securely fitted on board & satisfactorily tried under full power. The fuel tanks have been tested, a fire extinguisher fitted & the installation is in other respects in accordance with the Rules.*

*This vessel is in my opinion eligible to have notation + LMC 7, 21 in the Register Book.*

It is submitted that  
this vessel is eligible for  
THE RECORD + LMC. 7. 21  
oil Engines 2. SESA. (annual survey)  
4 Cy. 16 1/2 - 18 15/16 91 NHP.  
VTCy. Bolinders Co Lim. Stockholm Bell 15/8/21

The amount of Entry Fee ... £ : :  
Special ... £ : :  
Donkey Boiler Fee ... £ 4 : 19.0  
Travelling Expenses (if any) £ 6 = 13 = 4 22.8 1921  
TUE. 16 AUG. 1921

When applied for, AUG 1921

When received, 22.8 1921

*H Sandner-Smith*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

*+ LMC 7.21  
oil engines*



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Foundation