

# REPORT ON MACHINERY.

No. 2518

Date of writing Report 19 When handed in at Local Office 12/1/12 Port of Sunderland Received at London Office MON. JAN 15 1912  
 No. in Survey held at Sunderland Date, First Survey 26 May Last Survey 19/2  
 Reg. Book. New on the S/S "VICTORIA". (Trawler) (Number of Visits 22)  
 Master Built at Middlesbrough By whom built Smiths Dock Co. L<sup>d</sup> 1504 Tons Gross 1912  
 Engines made at Sunderland By whom made Maclellan & Pollock L<sup>d</sup> (N<sup>o</sup> 222) when made 1912  
 Boilers made at Sunderland By whom made Maclellan & Pollock L<sup>d</sup> (N<sup>o</sup> 222) when made 1912  
 Registered Horse Power Owners J. Thomas Port belonging to Milford  
 Nom. Horse Power as per Section 28 78 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12 1/2 20 34 Length of Stroke 24 Revs. per minute 105 Dia. of Screw shaft as per rule 1 3/8 Material of steel  
 as fitted 1 9/16 screw shaft  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes 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 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 2-6 3/8  
 Dia. of Tunnel shaft as per rule 6-33 Dia. of Crank shaft journals as per rule 6-64 Length of stern bush 2-6 3/8  
 as fitted none Dia. of Crank pin 6 7/8 Size of Crank webs 4 5/8 x 10 1/2 Dia. of thrust shaft under  
 collars 6 7/8 Dia. of screw 9-3 Pitch of Screw 11-10 1/2 No. of Blades 4 State whether moveable no Total surface 34  
 No. of Feed pumps 1 Diameter of ditto 2 3/4 Stroke 12 Can one be overhauled while the other is at work  
 No. of Bilge pumps 1 Diameter of ditto 2 3/4 Stroke 12 Can one be overhauled while the other is at work  
 No. of Donkey Engines 2 Sizes of Pumps General " " 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room two 2" In Holds, &c. slush well 2" (one).  
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump b.p. Is a separate Donkey Suction fitted in Engine room & size 2 1/2 ejector  
 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  
 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 & slush well suction How are they protected Wood casing  
 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  
 Dates of examination of completion of fitting of Sea Connections 5.12.11. of Stern Tube 28-12-11 Screw shaft and Propeller 28-12-11  
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door machy aft worked from

**BOILERS, &c.**—(Letter for record (S)) Manufacturers of Steel John Spencer & Sons Limited  
 Total Heating Surface of Boilers 1446 Is Forced Draft fitted no No. and Description of Boilers one single ended maine.  
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 29-9-11 No. of Certificate 2956  
 Can each boiler be worked separately Area of fire grate in each boiler 41 No. and Description of Safety Valves to  
 each boiler two spring loaded Area of each valve 3-98 Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers 12-9 Length 10-6 Material of shell plates steel  
 Thickness 1 1/2 Range of tensile strength 28 1/2-32 kws Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.  
 long. seams TR, DRS Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 3/4 Lap of plates or width of butt straps 15 3/4  
 Per centages of strength of longitudinal joint rivets 92.5 Working pressure of shell by rules 181 Size of manhole in shell 16 x 12  
 plate 85.5  
 Size of compensating ring 28 x 26 x 1 1/2 and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 38  
 Length of plain part top 7 3/4 Thickness of plates crown 3/4 Description of longitudinal joint welded No. of strengthening rings none  
 bottom 8 1/4 bottom 3/4  
 Working pressure of furnace by the rules 189 Combustion chamber plates: Material steel Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 5/16  
 Pitch of stays to ditto: Sides 9 1/2 x 9 Back 9 1/2 x 9 Top 9 3/8 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183  
 Material of stays steel Diameter at smallest part 20 7/0 Area supported by each stay 88-80 Working pressure by rules 209 End plates in steam space:  
 Material steel Thickness 13 1/16 Pitch of stays 18 3/4 x 18 1/2 How are stays secured D.N. Working pressure by rules 182 Material of stays steel  
 Diameter at smallest part 6-10 Area supported by each stay 34-70 Working pressure by rules 183 Material of Front plates at bottom steel  
 Thickness 13 1/16 Material of Lower back plate steel Thickness 13 1/16 Greatest pitch of stays 12 3/4 x 9 Working pressure of plate by rules 187  
 Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 13 1/16 Back 13 1/16 Mean pitch of stays 11 1/4  
 Pitch across wide water spaces 13 1/2 Working pressures by rules 186 Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 20 8 1/8 x 7/8 Length as per rule 31 1/2 Distance apart 9 1/2 Number and pitch of stays in each 2 @ 9 3/8  
 Working pressure by rules 186 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked  
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet  
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
 stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear



VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler		Dia. of donkey boiler	Length	
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed, air circulating and bilge pump valves, two feed check valves, iron and bolts of various sizes.

The foregoing is a correct description,  
**MAG COLL & POLLOCK LTD.**  
 Manufacturer.

*Alfred MacColl*  
 Dates of Survey while building  
 During progress of work in shops -- 1911. May 26. June 13. 26. July 5. 21. 26. Aug. 24. Sept. 2. 22. 28. 29  
 During erection on board vessel -- Dec. 5. Dec. 20. 28. 29. Jan. 3. 4. 8. 9. 10. 11. Feb. 1. 1912. Dec. 5. 1912. Jan. 23. 31. Feb. 6.  
 Total No. of visits (22) Is the approved plan of main boiler forwarded herewith  yes  none

Dates of Examination of principal parts—Cylinders 21-7-11 Slides 24-8-11 Covers 24-8-11 Pistons 21-7-11 Rods 24-8-11  
 Connecting rods 21-7-11 Crank shaft 26-7-11 Thrust shaft 22-9-11 Tunnel shafts none Screw shaft 5-10-11 Propeller 22-9-11  
 Stern tube 22-9-11 Steam pipes tested 4-1-12 Engine and boiler seatings 5, 12, 11, Engines holding down bolts 4-1-12  
 Completion of pumping arrangements 9-1-12 Boilers fixed 8-1-12 Engines tried under steam 9-1-12  
 Main boiler safety valves adjusted 9-1-12 Thickness of adjusting washers both 3/8"  
 Material of Crank shaft steel Identification Mark on Do. 2015 H.S.7 Material of Thrust shaft steel Identification Mark on Do. 2026 H.S.7  
 Material of Tunnel shafts none Identification Marks on Do. ✓ Material of Screw shaft steel Identification Marks on Do. 2025 H.S.7  
 Material of Steam Pipes solid drawn copper ✓ Test pressure 400 lbs per sq" ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)  
 To complete the machinery survey the slush well suction pipe and the winch steam and exhaust pipes require to be protected where they pass through the bunker.  
 Vessel proceeding to Middlesbrough. Surveyors advised at that port. The materials and workmanship are good.  
 The machinery of this vessel has been built under special survey and is eligible in our opinion for classification and the record L.M.C. 2.12 (with date) when the survey is complete.

The slush well suction pipe & the winch steam & exhaust pipes have been efficiently protected with wood casing where they pass through the bunker.  
 Vessel placed in dry dock & the propeller, stern bush & sea connection fastenings exam'd & found good on 23.1.12.  
 It is submitted that this vessel is eligible for THE RECORD + L.M.C. 2.12

The amount of Entry Fee .. £ 1 : - : When applied for,  
 Special .. £ 11 : 14 :  
 Donkey Boiler Fee .. £ : :  
 Travelling Expenses (if any) £ : :  
 When received, 2.3.12

*W. Lewis & Davis*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUE. FEB. 27. 1912

Assigned + L.M.C. 2.12.

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

