

# YACHT.

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## REPORT ON OIL ENGINE MACHINERY.

No. 11316

WED. 9 AUG. 1922

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Received at London Office

of writing Report 28 July 1922 When handed in at Local Office 8<sup>th</sup> Aug. 1922 Port of Southampton

in Survey held at Southampton Date, First Survey 31<sup>st</sup> Oct. 1922 Last Survey 22<sup>nd</sup> July 1922

Book. Number of Visits 27

on the Single Screw vessels M.Y. "SONA" Tons <sup>Gross</sup> 519

Twin <sub>Triple</sub> Built at Southampton By whom built Campbell & Nichol No. 307 When built 1922

Engines made at Swanwich By whom made Vickers-Petters Ltd Engine Nos. 251 When made 1922

Boilers made at Swanwich By whom made Swanwich Boiler No. — When made —

Indicated Horse Power 500 each Owners The Earl of Dunraven K.P. Port belonging to Southampton

Net Horse Power as per Rule 286 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

**ENGINES, &c.** — Type of Engines 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders — No. of cylinders — No. of cranks — Diameter of cylinders —

Length of stroke — Revolutions per minute — Means of ignition — Kind of fuel used —

Clearance between bearings — Span of bearings (Page 92, Section 2, par. 7 of Rules) —

Distance between centres of main bearings — Is a flywheel fitted — Diameter of crank shaft journals —

Diameter of crank pins — Breadth of crank webs — Thickness of ditto —

Diameter of flywheel shaft — Diameter of tunnel shaft Approved 5 1/16" Diameter of thrust shaft —

Diameter of screw shaft Approved 6 3/8" 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 watertight in the propeller boss yes If the liner is in more than one length are the joints burned —

Is a 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 no liners are fitted, is the shaft lapped or protected between the liners — If without liners, is the shaft arranged to run in oil —

Diameter of outer gland fitted to stern tube NONE Length of stern bush INNER = 1-0 3/4" OUTER = 2-1 1/2" A. BRKT. 2-1 1/2" Diameter of propeller 6-0"

Diameter of propeller 7-0" No. of blades 4 state whether moveable No Total surface 11 square feet

Method of reversing — Is a governor or other arrangement fitted to prevent racing of the engine when declutched — Thickness of cylinder liners —

Are the cylinders fitted with safety valves — Means of lubrication — Are the exhaust pipes and silencers water cooled or lagged with conducting material —

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Exhaust led up funnel

Is the vessel yes No. of cooling water pumps — Is the sea suction provided with an efficient strainer which can be cleared —

Can the vessel be overhauled while the other is at work yes No. of bilge pumps fitted to the main engines — Diameter of ditto — Stroke —

No. of pumps 2 No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps: — In engine room 4-2"

Are the pumps in holds, etc. Fore Peak 1-2" Fore hold 2-2" No. of ballast pumps How driven Electric

Is a ballast pump fitted with a direct suction from the engine room bilges — State size — Is a separate auxiliary pump suction fitted in the engine room —

Room and size yes. 223" 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 Valves Are they fixed sufficiently high on the ship's side to be seen without lifting the floor 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 all pipes, cocks, valves and pumps in connection with the machinery 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 — Is it fitted with a watertight door —

Is it fitted with a watertight door — If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork —

**RECEIVERS:** — No. of high pressure air receivers 2 Internal diameter 24" Cubic capacity of each 24 ft

Material Steel Seamless, lap welded or riveted longitudinal joint Riveted Range of tensile strength —

Working pressure by Rules — No. of starting air receivers — Internal diameter —

Material — Seamless, lap welded or riveted longitudinal joint —

Thickness — Working pressure by rules — Is each receiver, which can be isolated, provided with a safety valve as per Rule yes

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their surfaces —

Is there a drain arrangement fitted at the lowest part of each receiver —

W319-016

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IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....					
"    "    COVERS .....					
"    "    JACKETS.....					
"    "    PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					
"    2nd .....					
"    3rd .....					
AIR RECEIVERS—STARTING .....					
"    INJECTION .....					
AIR PIPES .....					
FUEL PIPES .....					
FUEL PUMPS .....					
SILENCER .....					
"    WATER JACKET .....					
SEPARATE FUEL TANKS .....					

PLANS. Are approved plans forwarded herewith for shafting  
(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops--	31	24-31	1.5.13	11.20.24.26	2.3	3.4.6.14.27.30	3.21.28	29	10.12.13.14.22	
	10,	11	12	1921	1	2	3	4	6	7
During erection on board vessel--										
Total No. of visits	27									

Dates of Examination of principal parts—Cylinders  Covers  Pistons  Rods  Connecting rods

Crank shaft  Thrust shaft  Tunnel shafts 1-12-21 Screw shaft 1-12-21 Propeller 3-3-22 Stern tube 31-10-21 Engine seatings 24-

Engines holding down bolts P=14-3-22 S=27-3-22 Completion of pumping arrangements 27-3-22 Engines tried under working conditions 12-7-22

Completion of fitting sea connections 2-2-22 Stern tube P=11-1-22 S=24-1-22 Screw shaft and propeller 27-3-22

Material of crank shaft  Identification Mark on Do.  Material of thrust shaft  Identification Mark on Do.

Material of tunnel shafts Steel Identification Marks on Do S=13781 P=13782 H. Material of screw shafts Steel Identification Marks on Do P= LLOYD NO 34 W. H. S= LLOYD NO 3 W.

Is the flash point of the oil to be used over 150° F. yes

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 engines as per Ipswich Report N° 85486, have been efficiently fitted on board the vessel, and on trial proved satisfactory. Eligible in my opinion to have notation +L.M.C.7.22.

It is submitted that this vessel is eligible for THE RECORD. +L.M.C. 7.22 Oil Engines. 2 L.C. 1A

1264. 16 1/2 - 18. N.H.P. 286. C.L. Vickers Peters & Co. (Annual Survey)

The amount of Entry Fee ... £ : : When applied for, 8/8/22  
Special 1/5 of Total £ 14 : 7 : 8  
Donkey Boiler Fee ... £ : :  
ELECTRICAL INSTALLATION £ 25 : 0 : 0  
Travelling Expenses (if any) £ : : : When received, 8/9/22

A. A. Boyle  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

MACHINERY CERTIFICATE

+L.M.C. 7.22 oil engines



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