

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office SEP 12 1938
PLYMOUTH.

Date of writing Report 22nd Aug 38 When handed in at Local Office Sep 10 1938 Port of PLYMOUTH.

No. in Survey held at Dartmouth Date, First Survey 23rd June Last Survey Aug. 18. 1938
(Number of Visits.....)

Reg. Book. 980 on the TWIN SCREW MOTOR YACHT "CAMPEADOR V" Tons { Gross 195.96
Net 144.96

Built at Dartmouth By whom built Philip & Sons Ltd. Yard No. 847 When built 1938

Owners Vernand. & Andrew Esqrs Port belonging to Dartmouth

Electric Light Installation fitted by Philip & Sons Ltd. Contract No. 847 When fitted 1938.

Is the Vessel fitted for carrying Petroleum in bulk no.

System of Distribution Two Wire

Pressure of supply for Lighting 110 volts, Heating 110 volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct Power Direct

If alternating current system, state frequency of periods per second _____

Has the **Automatic Governor** been tested and found efficient when the whole load is suddenly thrown on or off Yes

Generators, do they comply with the requirements regarding rating Yes, are they compound wound Yes
are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator Yes

Where more than one generator is fitted are they arranged to run in parallel Yes, is an adjustable regulating resistance fitted in series with each shunt field Yes

Are all terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes

Position of Generators In Engine Room Starboard Side, are the lubricating arrangements of the generators as per Rule Yes
is the ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yes
if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators _____ and _____, are the generators protected from mechanical injury and damage from water, steam or oil Yes
are their axes of rotation fore and aft Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes, are the prime movers and their respective generators in metallic contact Yes

Main Switch Boards, where placed on aft bulkhead of Engine Room.
If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard Yes

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes, are they protected from mechanical injury and damage from water, steam or oil Yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards Yes and Yes, are they constructed wholly of durable, non-ignitable non-absorbent materials Yes, is all insulation of high dielectric strength and of permanently high insulation resistance Yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes
and is the frame effectively earthed Yes. Are the fittings as per Rule regarding:— spacing or shielding of live parts Yes, accessibility of all parts Yes, absence of fuses on back of board Yes, position of omnibus bars Yes, individual fuses to voltmeter pilot or earth lamp Yes, connections of switches Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Double Pole quick break knife switches and 7rd fuses

Instruments on main switchboard Three ammeters One voltmeters Int synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system one pair of earth lamps

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes

Cables: Single, twin, concentric, or multicore Single are the cables insulated and protected as per Tables IV, V, XI or XIII of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load Nil

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound None

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage Yes

Support and Protection of Cables, state how the cables are supported and protected Brass clips Secured by brass screws

If cables are run in wood casings, are the casings and caps secured by screws , are the cap screws of brass , are the cables run in separate grooves . If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII Yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements

Joints in Cables, state if any, and how made, insulated, and protected None

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed Yes state the material of which the bushes are made lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas One 3/036 cable from earth lamps are their connections made as per Rule

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule Yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven None

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses Yes, are the fuses double pole Yes are the switches and fuses grouped in a position accessible only to the officers on watch Yes has each navigation lamp an automatic indicator as per Rule Yes

Secondary Batteries, are they constructed and fitted as per Rule Yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight Yes are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected None are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected None how are the cables led None where are the controlling switches situated

Searchlight Lamps, No. of One whether fixed or portable Portable are their fittings as per Rule Yes

Arc Lamps, other than searchlight lamps, No. of None are their live parts insulated from the frame or case , are their fittings as per Rule

Motors, are their working parts readily accessible Yes are the coils self-contained and readily removable for replacement Yes are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material Yes are they protected from mechanical injury and damage from water, steam or oil Yes are their axes of rotation fore and aft Yes if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type Yes if not of this type, state distance of the combustible material horizontally or vertically above the motors and

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule Yes

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings None If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office None

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	One	15	110/165	136/91	1000	Diesel Engine	Diesel Oil	above 150° F
AUXILIARY	One	3	110/165	27/18	1500	Petrol Engine	Petrol	below 150° F
EMERGENCY	✓	✓	✓	✓	✓			
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	One	0.14780	37	.072	136	152	16	V.I.R	Pipe
EQUALISER CONNECTIONS	✓								
AUXILIARY GENERATOR	One	0.01046	4	.044	27	31	36	V.I.R	Pipe
EMERGENCY GENERATOR	✓								
ROTARY TRANSFORMER MOTOR GENERATOR	One	0.00799	3	.036	7	12	8	V.I.R	Pipe
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	One (aft)	0.00701	4	.036	20	24	60	C.T.S.	Pipe
	One (forward)	0.00701	4	.036	16	24	120	V.I.R	Lead lined tank
WIRELESS	✓								
SEARCHLIGHT	One	0.00465	4	.029	15	18.2	30	C.T.S.	Pipe
MASTHEAD LIGHT	One	0.00194	3	.029	.5	4.8	100	C.T.S.	do
SIDE LIGHTS	One	0.00194	3	.029	.5	4.8	48	C.T.S.	do
COMPASS LIGHTS	One	0.00194	3	.029	.2	4.8	52	C.T.S.	do
POOP LIGHTS	✓								
CARGO LIGHTS	✓								
ARC LAMPS	✓								
HEATERS	One	0.01046	4	.044	15	31	60	C.T.S.	Pipe

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP	One	One	0.01046	4	.044	21	31	80	V.I.R	Lead lined tank
MAIN BILGE LINE PUMPS	One	One	0.01046	4	.044	21	31	80	V.I.R	Lead lined tank
GENERAL SERVICE PUMP	✓									
EMERGENCY BILGE PUMP	✓									
SANITARY PUMP	✓									
CIRC. SEA WATER PUMPS	✓									
CIRC. FRESH WATER PUMPS	One	One	0.03960	19	.052	55	64	20	C.T.S.	Pipe
AIR COMPRESSOR	One	One	0.00799	3	.036	7	12	48	V.I.R	Lead lined tank
FRESH WATER PUMP	✓									
ENGINE TURNING GEAR	✓									
ENGINE REVERSING GEAR	✓									
LUBRICATING OIL PUMPS	One	One	0.00799	3	.036	3.5	12	48	V.I.R	Lead lined tank
OIL FUEL TRANSFER PUMP	One	One	0.03960	19	.052	40	64	118	V.I.R	do do
WINDLASS	✓									
WINCHES, FORWARD	One	One	0.03960	19	.052	40	64	120	C.T.S.	Pipe
WINCHES, AFT	✓									
STEERING GEAR—										
(a) MOTOR GENERATOR	✓									
(b) MAIN MOTOR	✓									
WORKSHOP MOTOR	One	One	0.00194	3	.029	.5	4.8	40	C.T.S.	Pipe
VENTILATING FANS	✓									

All Conductors are of annealed copper conforming to British Standard Specification No. 7.
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

FOR PHILIP & SON, LIMITED.

John Pauter
 MANAGING DIRECTOR.

Electrical Engineers.

Date 8/9/38

COMPASSES.

Distance between electric generators or motors and standard compass

6 ft
 18 ft

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying .2 Ampères four feet from standard compass four feet from steering compass.

A cable carrying ✓ Ampères ✓ feet from standard compass ✓ feet from steering compass.

A cable carrying ✓ Ampères ✓ feet from standard compass ✓ feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power Yes ✓

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted Yes ✓

The maximum deviation due to electric currents was found to be nil degrees on Straight course in the case of the standard compass, and nil degrees on Straight course in the case of the steering compass.

FOR PHILIP & SON, LIMITED.

John Pauter
 MANAGING DIRECTOR.

Builder's Signature.

Date 8/9/38

Is this installation a duplicate of a previous case No ✓ If so state name of vessel

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

This Installation has been fitted in accordance with the Rules and approved plans and correspondence.

The materials and workmanship are good and eligible in my opinion to be in a Classed Vessel.

Tests under working conditions were satisfactory

Notice

19/9/38

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ... £

15: 0

When applied for. 10 SEP. 1938

Travelling Expenses (if any) £

✓

When received. 1/11. 19. 38

Thomas Miller

Surveyor to Lloyd's Register of Shipping.

TUE 20 SEP 1938

Committee's Minute

Assigned

See Gb. 59875

2m.331.—12a.3.41. The Surveyors are requested not to write on or below the space for Committee's Minute.