

YACHT.

18094

Rpt. 13.

No. 14039

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 26 JUL 1930

Date of writing Report 25.7 1930 When handed in at Local Office 25.7 1930 Port of Southampton

No. in Survey held at Cowes Date, First Survey 2.4.30 Last Survey 16.7 1930  
Reg. Book. 6965 on the t. o. m. yacht "XARIFA" (Number of Visits 10)

Built at Cowes By whom built J. Samuel White & Co. No. 1686 When built 1930  
Owners Franklin Singer Esq. Port belonging to New York  
Electric Light Installation fitted by J. Samuel White & Co. Contract No. 1686 When fitted 1930  
Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution 2 Wire D.C.

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

Direct or Alternating Current, Lighting D.C. Power D.C.

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

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 After end of Engine Room, 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 After end of Engine Room above generators

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

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

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, proportion of omnibus bars Yes

individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches Yes

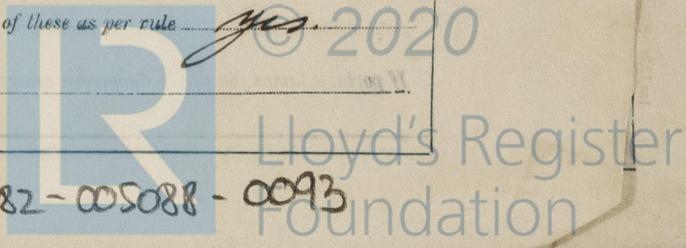
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Each generator is provided with one D.C. circuit breaker having over load, no volt & reverse current trips. Equalizer switch mechanically interlocked with main switch in series with the circuit breaker. Each outgoing circuit has P.R.S.P. switch & D.P. fuses.

Instruments on main switchboard 4 ammeters 2 voltmeters 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 Earth lamps with switches & fuses on each pole.

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



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## 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 ...	2	16	110/180	145/89	650	Compound Stationary Eng	✓	✓
AUXILIARY ...								
EMERGENCY ...								
ROTARY TRANSFORMER								

## GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		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 ...	1	0.200	37	.083	145	184	50	Y.I.R.	L.C.
EQUALISER CONNECTIONS ...	1	0.200	"	"	✓	✓	25	"	"
AUXILIARY GENERATOR ...									
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER MOTOR GENERATOR ...									
ENGINE ROOM ...	1	0.07	7	.036	14	24	32	do	do
BOILER ROOM ...									
AUXILIARY SWITCHBOARDS ...									
Navigation	1	0.07	7	.036	8.5	24	220	do	do
Small P.M. Eng Rm Aft	1	0.40	19	.052	52	64	50	do	do
" " Forward	1	0.40	19	.052	39	64	326	do	do
Raiders Cabin Ford	1	0.40	19	.052	59	64	272	do	do
do Aft	1	0.145	7	.052	27	37	60	do	do
ACCOMMODATION OFFICERS CABIN	1	0.145	7	.052	11	37	300	do	do
Officers Cabins	1	0.03	3	.036	6.75	12	72	do	do
Crews Forward	1	0.04	19	.052	30	64	272	do	do
do Aft Upper Deck	1	0.07	7	.036	17.5	24	50	do	do
do Lower Deck	1	0.145	7	.052	22	37	160	do	do
WIRELESS ...	1	0.07	7	.036	10	24	176	do	do
SEARCHLIGHT ...	1	0.145	7	.052	30	57	222	do	do
MASTHEAD LIGHT ...	1	0.03	3	.036	5.5	12	250	do	do
SIDE LIGHTS ...	1	0.03	3	.036	1.10	12	95	do	do
COMPASS LIGHTS ...	4	0.03	3	.036		12	Various	do	do
POOP LIGHTS ...									
CARGO LIGHTS ...									
ARC LAMPS ...									
HEATERS ...									

## MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		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 ...										
MAIN BILGE LINE PUMPS ...										
GENERAL SERVICE PUMP ...	2	1	0.03	3	.036	5	12	100	Y.R.	L.C.
EMERGENCY BILGE PUMP ...										
SANITARY PUMP ...										
CIRC. SEA WATER PUMPS ...										
CIRC. FRESH WATER PUMPS ...										
AIR COMPRESSOR ...	1	1	0.03	3	.036	5	12	100	do	do
FRESH WATER PUMP ...	1	1	0.03	3	.036	5	12	80	do	do
ENGINE TURNING GEAR ...										
ENGINE REVERSING GEAR ...										
LUBRICATING OIL PUMPS ...										
OIL FUEL TRANSFER PUMP ...										
WINDLASS ...	1	1	0.75	19	.072	108	113 (1/2 HR)	334	do	do & Armoured
WINCHES, FORWARD ...	1	1	0.75	19	.072	78	97	220	do	do do
WINCHES, AFT ...										
Wing Capstans	2	1	0.145	7	.052	37	37	70	do	do
STEERING GEAR ...										
(a) MOTOR GENERATOR ...										
(b) MAIN MOTOR ...	1	1	0.145	7	.052	37	37	194	do	do & Armoured
WORKSHOP MOTOR ...										
VENTILATING FANS ...										
Nº 1	1	1	0.07	7	.036	13	24	36	do	do
Nº 2	1	1	0.07	7	.036	13	24	72	do	do
Nº 3	1	1	0.07	7	.036	13	24	220	do	do
Nº 4	1	1	0.07	7	.036	13	24	40	do	do
EXHAUST FAN	1	1	0.03	3	.036	5	12	180	do	do
FRIGIDAIRE	2	1	0.03	3	.036	5	12	180	do	do
do	1	1	0.03	3	.036	5	12	60	do	do

**Cables:** Single, twin, ~~concentric~~ multicore are the cables insulated and protected as per Tables IV or V of the Rules *yes*

**Fall of Pressure,** state maximum between bus bars and any point of the installation under maximum load *lighting 3.2 Volts. Power 4.5 Volts.*

**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 *Some have special clamp terminals, remainder soldered sockets.*

**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 *✓*

**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 *Main cable runs are supported on perforated steel trays cables down exposed to mechanical injury are L.C. & Armoured, in accommodation clipped to structure or behind panels.*  
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 *Looping in boxes are used in lighting circuits, no joints in main circuits.*

**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 *✓*  
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 *✓*

**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 *gas tight fittings in Battery Compartment*, how are the cables led *L.C. & A cables supported on perforated steel trays*, where are the controlling switches situated *gas tight switches in Battery Compartment*

**Searchlight Lamps,** No. of *one*, whether fixed or portable *fixed*, are their fittings as per Rule *yes*

**Arc Lamps,** other than searchlight lamps, No. of *✓*, 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 *as far as practicable*, 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 *✓*, 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 *✓*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *✓*

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 J. SAMUEL WHITE & COMPANY LTD.,

Electrical Engineers.

Date 26th June, 1930.

Managing Director.

COMPASSES.

Distance between electric generators or motors and standard compass 70' to generators 25' to small motor.

Distance between electric generators or motors and steering compass 65' " " 20 " " " "

The nearest cables to the compasses are as follows:—

A cable carrying .25 Ampères 1 feet from standard compass 1 feet from steering compass.

A cable carrying 8.5 Ampères 12 feet from standard compass 10 feet from steering compass.

A cable carrying 30 Ampères 12 feet from standard compass 15 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 course in the case of the standard

compass, and nil degrees on course in the case of the steering compass.

FOR J. SAMUEL WHITE & COMPANY LTD.,

Builder's Signature.

Date 26th June, 1930.

Managing Director.

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.)

The Electric Fittings have been installed in general accordance with the requirements of the Rules tested under working conditions & found satisfactory. The workmanship & materials are good. The vessel is eligible for the notation "Electric Light".

It is certified that this vessel is eligible for THE RECORD. Elec. Light.

28/7/30

I. R. Howe

Surveyor to Lloyd's Register of Shipping.

Total Capacity of Generators 32 Kilowatts.

The amount of Fee ... £ 23 : : When applied for, 25/7 19 30

Travelling Expenses (if any) £ : : When received, 1.9.30

Committee's Minute FRI. 1 AUG 1930

Assigned Elec Light

Im. 12.28.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

