

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 3<sup>rd</sup> Jan 1923 When handed in at Local Office 3<sup>rd</sup> Jan 1923 Port of Southampton Received at London 11<sup>th</sup> JAN. 4 1923

No. in Survey held at Southampton Date, First Survey Nov 8 Last Survey Dec 12 1922  
Reg. Book. 9148 on the HOPPER BARGE "GANGUIL N<sup>o</sup> 2. (Number of Visits 3)

Built at Southampton By whom built White Bros. Yard No. 221 When built 1922  
Owners Spanish Government Port belonging to

Electric Light Installation fitted by E. W. Nichark & Co Contract No. When fitted 1922

System of Distribution All Fittings looped no joints

Pressure of supply for Lighting 110 volts, Heating none volts, Power none volts.

Direct or Alternating Current, Lighting Direct Power ✓

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 overload 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 Only one, is an adjustable regulating resistance fitted in series with each shunt field yes ON Switchboard

Are all terminals accessible and clearly marked yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited yes

Are the lubricating arrangements of the generators as per Rule yes

Position of Generators Engine Room

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 All iron work and are the generators protected from mechanical injury and damage from water, steam or oil yes

are their axis 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 In 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 ✓

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 All iron work

are they constructed wholly of durable, incombustible 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 connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework none used

and is the frame effectively earthed yes

Are the following fittings as per Rule, viz. :— spacing or shielding of live parts yes

accessibility of all parts yes, absence of fuses on back of board none, proportion of omnibus bars 200% over

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

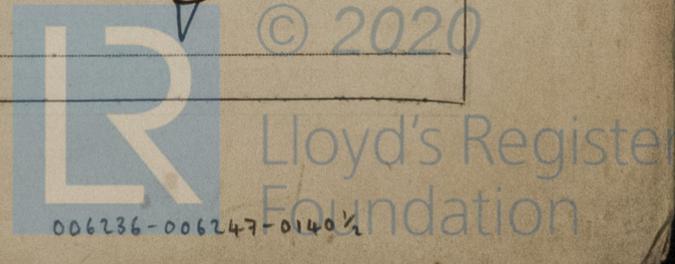
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Double pole Quick Breaks

Instruments on main switchboard One ammeters One 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

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

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



**Insulation of Cables**, state type of cables, single or twin Single are the cables insulated and protected as per Tables III or IV of the Rules. yes

**Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load. 2 to 3 Volts

**Cable Sockets and other connections**, are the ends of all cables having a sectional area of 0.007 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 Steel Conduit

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 VI 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. no joints

**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 Positions**, 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 Sheet Lead. (Lead Covered Cables)

**Earthing Connections**, state what earthing connections are fitted and their respective sectional areas Engine Dynamo and Switch Board in direct metallic contact with Ships Frame

are their connections made as per Rule yes

**Alternative Lighting**, are the groups of lights in the propelling machinery space arranged as per Rule none

**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 Wheel House

has each navigation lamp an automatic indicator as per Rule yes, are separate screens provided for the use of oil and electric side lights yes

are separate oil lanterns provided for the mast head lights and side lights 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 no

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no

how are the cables led Through Steel Tubes

where are the controlling switches situated Main in Engine room others in Wheel House and Forecastle

**Searchlight Lamps**, No. of 1, whether fixed or portable fixed, are their fittings as per Rule yes

**Arc Lamps**, other than searchlight lamps, No. of 0, are their live parts insulated from the frame or case yes, are their fittings as per Rule yes

**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 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 yes

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

DESCRIPTION OF GENERATOR	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Ampères	Revs. per Min.		Fuel Used	Flash Point of Fuel
MAIN	One	1.2	110	11	900	Steam		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

Ref. No.	DESCRIPTION	No. of Conductors	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND		Total Maximum Current Ampères	Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
				No.	Diameter				
	MAIN GENERATOR	2	0.100	4	0.045	34	12'	C. J. R.	Taped
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM								
	BOILER ROOM								
	WIRELESS								
	SEARCHLIGHT	4	0.030	3	0.036	12	90'	V. J. R.	Steel Conduit
	MASTHEAD LIGHT	4	0.030	3	0.036	12	20'	V. J. R.	Lead Covered
	SIDE LIGHTS								
	COMPASS LIGHTS	2	0.030	3	0.036	12	46'	C. J. R.	Lead Steel Conduit
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

Ref. No.	DESCRIPTION	No. of Motors	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND		Total Maximum Current Ampères	Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
				No.	Diameter				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	WORKSHOP MOTOR								
	VENTILATING FANS								

*None in Vessel*

All Conductors are of annealed copper conforming to British Standard Specification No. 7. *yes*

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

*E. D. Whitart & Co*

Electrical Engineers.

Date *3. 1. 22*

**COMPASSES.**

Distance between electric generators or motors and standard compass .....

Distance between electric generators or motors and steering compass .....

The nearest cables to the compasses are as follows:—

A cable carrying *5* Ampères *Four* feet from standard compass *5* 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 .....

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

The maximum deviation due to electric currents was found to be ..... degrees on ..... course in the case of the standard

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

Builder's Signature. Date .....

Is this installation a duplicate of a previous case *yes*. If so, state name of vessel *"Gauguil" No. 1.*

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

*This installation of electric light has been well fitted. The materials & workmanship are sound & good. It has been tried under full working conditions and found satisfactory.*

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

*J.W.D.*  
*22/1/22*

Total Capacity of Generators *1.2* Kilowatts

The amount of Fee ... .. £ *5 : 0* : { When applied for, *13/12 1922*  
Travelling Expenses (if any) £ : : { When received, *13/12/19 22*

*J.G. Mackillop*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute .....

Assigned .....

Im. 3. 22.—Transfer.  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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