

REPORT ON ELECTRIC FITTINGS

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 26.10.1928 When handed in at Local Office 30.10.1928 Port of GLASGOW.

No. in Survey held at GLASGOW. Date, First Survey 11.9.28 Last Survey 29.10.1928
Reg. Book. 91070 on the TWIN SCREW FERRY "M.O.P.S.B.A." (Number of Visits 10)

Built at GLASGOW. By whom built MESSRS YARROW & CO. LTD Yard No. 1559 When built 1928.
Tons { Gross 427
Net

Owners THE ARGENTINE GOVERNMENT. Port belonging to BUENOS AYRES.

Electric Light Installation fitted by MESSRS YARROW & CO. LTD Contract No. 1659 When fitted 1928.
"OTHER THAN PROPULSION."

System of Distribution TWO WIRE D.C.

Pressure of supply for Lighting 125. volts, Heating 125. volts, Power 125. 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 ✓

Where more than one generator is fitted are they arranged to run in parallel NO., 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 ENGINE ROOM. IN TANDEM WITH PROPULSION GENERATORS.

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. (EMERGENCY PETROL SET TOWARD SHIP)

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 ✓ and ✓.

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.

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, if semi-insulating material is used, are all conducting parts insulated from the slab 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, connections of switches 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

MAIN SWITCHES AND FUSES ON ALL CIRCUITS.

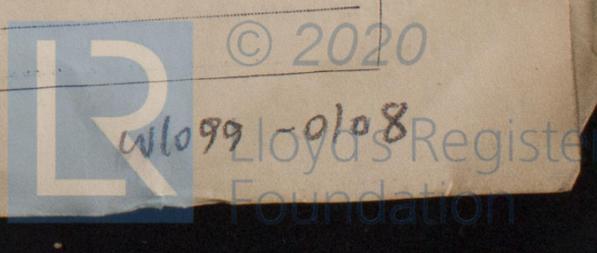
Instruments on main switchboard ammeters _____ voltmeters _____ synchronising device for paralleling purposes.

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.

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 BOTH. 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 3.5.

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 NO P.I. CABLES USED.

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 CLIPPED TO PERFORATED TRAYS BEAMS, ETC. protected with St. solve necessary.

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 NO LIGHTS.

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 NONE.

are their connections in accordance with per Rule YES.

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 PATROL ENGINE. SITUATED IN ENGINE ROOM. D.P. SWITCHES & FUSES.

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 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 NO. where are the controlling switches situated NO.

Searchlight Lamps, No. of 2. whether fixed or portable FIXED and their fittings as per Rule YES.

Are 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 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 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

PARTICULARS OF GENERATING PLANT.

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	2	170	250	680	350	6-CYL M.A.N. ENGINE.	DIESEL	ABOVE
AUXILIARY	2	35	125	280	350		OIL.	150°F.
EMERGENCY	1	10	125	82.	1190.			
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors PER CABLE	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...		SEE	PROVISION	REPT.				
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR	1	.4	61	.093	280	80	VIR	Lead Covered
	EMERGENCY GENERATOR	1	.075	19	.078	82	20	VIR	do
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS	1	.3	37	.103	200	14	VIR	do
	ENGINE ROOM		.003	3	.036	65	80	VIR	do
	BOILER ROOM								
	ACCOMMODATION		.0042	7	.22	12	190	VIR	do
	WIRELESS	1	.0125	7	.18	20	60	VIR	Lead Covered
	SEARCHLIGHT	1	.0125	7	.18	10	50	do	do
	MASTHEAD LIGHT	1	.003	3	.036	5	100	do	do
	SIDE LIGHTS	1	.003	3	.036	5	30	do	do
	COMPASS LIGHTS	1	.003	3	.036	25	20	do	do
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	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	1	.0044	7	.029	11.2	80	VIR	Lead Covered
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS	2	.075	19	.078	63	80	do	do
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR	2	.0045	7	.029	12.2	100	do	do
	WORKSHOP MOTOR								
	VENTILATING FANS								
	SALVAGE PUMP	1	.4	41	.093	280	60	do	do

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 & ON BEHALF OF
YARROW & CO. Ltd.

Alfred J. Stannard
Secretary

Electrical Engineers.

Date *29th Oct 1928*

COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

17' 0"

The nearest cables to the compasses are as follows:—

A cable carrying *25* Amperes feet from standard compass *in* feet from steering compass.

A cable carrying *5* Amperes feet from standard compass *6'* feet from steering compass.

A cable carrying _____ Amperes _____ 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 _____ course in the case of the standard compass, and degrees on *any* course in the case of the steering compass.

FOR & ON BEHALF OF
YARROW & CO. Ltd.

Alfred J. Stannard
Secretary

Builder's Signature.

Date *29th Oct 1928*

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 on board under special survey. Tested under full load conditions and found satisfactory. The materials and workmanship were found to be good and sound.

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

Elec. Light

J. S. Rankin
6/11/28

Total Capacity of Generators *80* Kilowatts.

See London Letter of 23/3/28.

The amount of Fee ... *£20.6.8*

When applied for,

When received,

Travelling Expenses (if any) £

J. S. Rankin
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. Light

1m, 127.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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