

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

3 AUG 1928

Date of writing Report 3.7.1928 When handed in at Local Office 6.8.1928 Port of GLASSGOW.No. in Survey held at GLASSGOW. Date, First Survey 18.6.28 Last Survey 29.6.1928
Reg. Book. S.S. CUSTODIAN. (Number of Visits 5)89506 on the GLASSGOW. Tons { Gross 5881
Net Built at GLASSGOW. By whom built MESSRS C. CONNELL & CO Yard No. 412 When built 1928.Owners J. J. Harrison Port belonging to LiverpoolElectric Light Installation fitted by MESSRS H. T. ROBERTSON & CO Contract No. 412 When fitted 1928**System of Distribution**Pressure of supply for Lighting 100 volts, Heating volts, Power 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 YesGenerators, do they comply with the requirements regarding rating Yes, are they compound wound Yesare 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 , is an adjustable regulating resistance fitted inseries with each shunt field YesAre 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 Are the lubricating arrangements of the generators as per Rule YesPosition of Generators Above Eng Room Store Starboard sideis 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 Yesare their axes of rotation fore and aft YesEarthing, are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers andtheir respective generators in metallic contact YesMain Switch Boards, where placed Above Eng Room Store

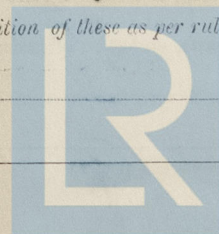
If the generators and main switchboard are not placed in the same compartment, is each generator provided with

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 Yesare they protected from mechanical injury and damage from water, steam or oil Yes, if situated near unprotectedwoodwork 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 ofpermanently high insulation resistance Yes, if semi-insulating material is used, are all conducting parts insulated from the slabwith mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yesand is the frame effectively earthed Yes Are the fittings as per Rule regarding:— spacing or shielding of live partsYes, accessibility of all parts Yes, absence of fuses on back of board Yes, proportion of omnibusbars 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

S.P. Main SwitchS.P. Circuit Switches for each outgoing circuitInstruments on main switchboard 1 ammeter 1 voltmeter 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

 Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YesJoint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YesLloyd's Register
Foundation

47184
Cables: Single, twin, concentric, or multicore Single 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 2 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 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 Yes
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 Accommodated in bearing machinery spaces, Lead covered & Armoured.
If cables are run in wood casings, are the casings and caps secured by screws Yes, are the cap screws of brass Yes, are the cables run in separate grooves Yes. 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 Yes
Joints in Cables, state if any, and how made, insulated, and protected Yes
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 fibre & compo tube
Earthing Connections, state what earthing connections are fitted and their respective sectional areas .022 & .003
are their connections made as 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 Yes
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 Yes
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Yes
how are the cables led Yes
where are the controlling switches situated Yes
Searchlight Lamps, No. of 1, whether fixed or portable 1, 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 Yes and Yes
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 Yes
If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office Yes

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	1	12 1/2	100	125	450	Enclosed Steam Eng.			
AUXILIARY									
EMERGENCY									
ROTARY TRANSFORMER									

LIGHTING AND HEATING CONDUCTORS.									
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...	1	.125	19	13	122	12	India Rubber Lead Covd.	
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	1	.022	7	0.64	12	6	"	"
	BOILER ROOM								
	ACCOMMODATION	1	.01	7	0.44	15	140	"	"
	WIRELESS	1	.01	7	0.44	5	66	"	"
	SEARCHLIGHT	1	.002	3	0.36	1	200	"	"
	MASTHEAD LIGHT...	2 pairs	.002	3	0.36	1	80	"	"
	SIDE LIGHTS...	2	.002	3	0.36	1	20	"	"
	COMPASS LIGHTS...	1	.004	4	0.36	15	225	"	"
	POOP LIGHTS	1	.022	7	0.64	28	42	"	"
	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 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								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	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.

A.T. Robertson & Co Electrical Engineers. Date *5th July 1928*

COMPASSES.

Distance between electric generators or motors and standard compass *100 ft*

Distance between electric generators or motors and steering compass *100 ft*

The nearest cables to the compasses are as follows:—

A cable carrying *8* Ampères *12* feet from standard compass *10* feet from steering compass.

A cable carrying *.2* Ampères *into* feet from standard compass *into* 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 *7 1/2* degrees on *every* course in the case of the standard compass, and *7 1/2* degrees on *every* course in the case of the steering compass.

For CHARLES COMNELL & CO., Limited.

N.W. Ballum SECRETARY

Builder's Signature.

Date

1 Aug. 1928

Is this installation a duplicate of a previous case *No*

If so, state name of vessel

S.S. Raucher

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.

Blue light

25.7.1928

Total Capacity of Generators *18.5* Kilowatts.

The amount of Fee ... £ *18.10.0* : { When applied for, *9.7.1928*

Travelling Expenses (if any) £ : : { When received, *11.7.1928*

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

Committee's Minute *GLASGOW 7 - AUG 1928*

Assigned *Elec. Light.*



© 2020

Lloyd's Register Foundation