

Rpt. 13.

No. 80456.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 19 When handed in at Local Office July 5th 1926 Port of NewcastleNo. in Survey held at Newcastle Date, First Survey March 15 Last Survey May 31st 1926.
Reg. Book. Supp. (Number of Visits 20.)38755 on the Dominia Tons { Gross 9250
Net 4700

Built at Newcastle. By whom built Swan Hunter & Wigham Richardson No. 1216 When built 1926

Owners Telegraph Const & Maintenance Co Ltd. Port belonging to London

Electric Light Installation fitted by Telegraph Const & Maintenance Co Ltd. Contract No. 1216. When fitted 1926

System of Distribution Double wire

Pressure of supply for Lighting 105 volts, Heating 105 volts, Power 105 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 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 No, is an adjustable regulating resistance fitted in series with each shunt field Yes

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 port side, Aux gen at top of 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

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 Engine room port side, Aux board on aft bulkhead at top 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

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, 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 Yes, 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 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 Double pole overload

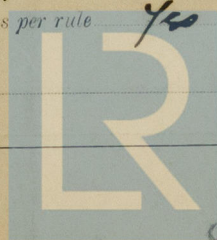
circuit breakers totally enclosed fitted on dynamo trains, all outgoing circuits fitted with double pole switches & fuses.

Instruments on main switchboard 3 ammeters 3 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



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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 *4.36 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

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 up to tray plating along port + starboard side of main deck*

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 *none made*

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 *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 *none fitted*

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*, 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 —

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected —

how are the cables led —

where are the controlling switches situated —

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 axis of rotation fore and aft *yes* *except aux. dynamo*

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 as per Rule *yes*

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

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.	Amperes.		Fuel Used.	Flash Point of Fuel.		
MAIN	2	31.5	105	300	525	Steam engines			
AUXILIARY	1	10.5	105	100	1000	Paraffin engine started on petrol.			
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. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	.4064	6	.093	300	45	V.I.R.	Lead covered
	AUXILIARY GENERATOR	2	.1009	19	.083	100	14	do	do
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM								
	BOILER ROOM	2	.0284	19	.044	25	4	do	Lead cov + arm.
	Mains between Mains + Aux	2	.1009	19	.083	100	146	do	do + arm.
	Aux. Midship	2	.06	19	.064	58	150	do	do
	Aux. From bk bridge	2	.06	19	.064	60	180	do	do
	Aux. Main bk. For	2	.06	19	.064	36.5	466	do	do
	Aux. main For mid	2	.0284	19	.044	17.0	370	do	do
	Aux. main bk. mid	2	.06	19	.064	56.0	312	do	do
	Aux. mid aft	2	.06	19	.064	32	170	do	do
	Aux. aft	2	.0284	19	.044	25.0	302	do	do
	WIRELESS	2	.0284	19	.044	20.0	104	do	do
	SEARCHLIGHT	2	.1009	19	.083	55.0	290	do	do
	MASTHEAD LIGHT	2	.00455	7	.029	.9	216	do	Lead cov + arm.
	MAST. MAIN	2	.00455	7	.029	.9	128	do	do
	SIDE LIGHTS	2	.00455	7	.029	.9	60	do	Lead covered.
	COMPASS LIGHTS	2	.00194	3	.029	.25	4.2	do	do
	STERN LIGHTS	2	.00455	7	.029	.9	422	do	Lead cov + arm.
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS	2	.00455	7	.029	20	48	do	Lead cov.

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								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	WORKSHOP MAINS	2 cables	.06	19	.064	80	60	do	Lead cov + arm.
	VENTILATING FANS								
	Lake motor	1	.0284	19	.044	21	16	do	do
	Workshop motor	1	.06	19	.064	42	72	do	do
	Snell motor	1	.0284	19	.044	21	12	do	do
	Gyro Compass	1	.00455	7	.029	2.5	60	do	Lead covered
	Blowers	2	.00455	7	.029	10.0	72	do	do
	Booster	1	.00455	7	.029	10.0	92	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 THE TELEGRAPH CONSTRUCTION
& MAINTENANCE COMPANY, LIMITED.

C. L. Clark
SECRETARY.

Electrical Engineers.

Date *8th June 1926*

COMPASSES.

Distance between electric generators or motors and standard compass *300 feet*

Distance between electric generators or motors and steering compass *284 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying *.25* Ampères *on the* ~~feet from~~ standard compass *6* feet from steering compass.

A cable carrying *.25* Ampères *6* feet from standard compass *on the* ~~feet from~~ steering compass.

A cable carrying *10* Ampères *9* feet from standard compass *12* 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 *each* course in the case of the standard compass, and *nil* degrees on *each* course in the case of the steering compass.

FOR
SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

G. J. Dwyer
DIRECTOR.

Builder's Signature.

Date *2 July 1926*

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 above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation elec light wireless

*It is submitted that
this vessel is eligible for
THE RECORD. Elec. Light*
W.T.
7/7/26

Total Capacity of Generators *73.5* Kilowatts

The amount of Fee ... £ *29 : 18* : *11* *June 1926*

Travelling Expenses (if any) £ : : *17* *June 1926* *W.T.*

W.T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec Light



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