

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report _____ 19 _____ When handed in at Local Office 4/6/25 Port of NEWCASTLE

No. in Survey held at Newcastle Date, First Survey 4 Feb. Last Survey 7 May 1925
Reg. Book. Supt. _____ (Number of Visits... 15)

89297 on the "Inanda" Tons { Gross _____ Net _____

Built at Newcastle By whom built Swan Hunter & Wigham Richardson Yard No. 1259 When built 1925

Owners J + J. Harrison Port belonging to Liverpool

Electric Light Installation fitted by Swan Hunter & Wigham Richardson Contract No. 1259 When fitted 1925

System of Distribution Double wire system volts, Heating _____ volts, Power _____

Pressure of supply for Lighting 100 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 _____

more than one generator is fitted are they arranged to run in parallel no, is an adjustable regulating resistance fitted in _____

each shunt field yes, terminals accessible and clearly marked yes, are they so spaced or shielded that they cannot be accidentally earthed, _____

circuited yes Are the lubricating arrangements of the generators as per Rule yes

Number of Generators Engine room starboard side midship, are they clear of all inflammable material yes

ventilation in way of the generators satisfactory yes, are they clear of all inflammable material yes

located 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

of axis of rotation fore and aft yes, are the bedplates and frames of the generating plant efficiently earthed yes are the prime movers and _____

respective generators in metallic contact yes

Switch Boards, where placed Engine room starboard side midship

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

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

and 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 _____

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 change

over switch & fuses on dynamo mains, single pole switch & double pole fuses on

each outgoing circuit

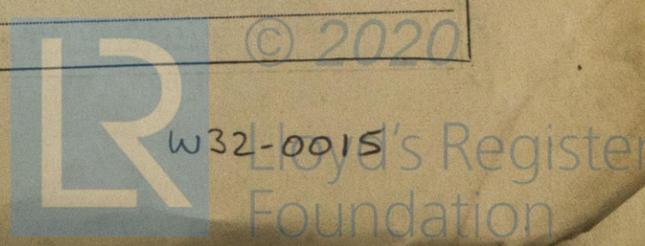
Instruments on main switchboard 2 ammeters 1 voltmeters _____ synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system switches & earth

lamps fitted on each insulated pole

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 4.7 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 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 Lead covered arm cable in pipe on upper deck forward

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 VI yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements none made

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 rubber & 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 Fitted on promenade deck in special house controlled by D.P. switches & fuses. Generator driven by petrol/paraffin engine

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 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

where are the controlling switches situated yes

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

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

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 and

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	WHEN DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Ampères	Revs. per Min.		Fuel Used	Flash Point of Fuel
MAIN	2	30	100	300	450	Steam engine		
AUXILIARY								
EMERGENCY	1	15	100	150	1000	Petrol-Paraffin	Paraffin	
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 (Petrol)	4	.1478	37	.072	300	40	rubber	Lead & armoured
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR	2	.1478	37	.072	150	35	do	do
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.00455	7	.029	3.6	160	do	do
	BOILER ROOM								
	Accommodation	2	.07592	19	.072	89	210	do	do
	Gen. services	2	.02214	7	.064	36	210	do	do
	Large Circuits	2	.02214	7	.064	28	210	do	do
	Officers' Dec.	2	.01046	7	.044	4	600	do	Lead covered
	Machinery emergency	2	.01478	37	.072	150	240	do	Lead & armoured
	Emergency lighting	2	.02214	7	.064	28	50	do	Lead covered
	Navigation	2	.01046	7	.044	6	630	do	do
	Floodlights	2	.02214	7	.064	20	630	do	do
	WIRELESS	2	.02214	7	.064	15	620	do	Lead covered
	SEARCHLIGHT								
	MASTHEAD LIGHT	2	.00194	3	.029	.6	580	do	Lead covered & lead covered
	SIDE LIGHTS	2	.00194	3	.029	.6	70	do	do
	COMPASS LIGHTS	2	.00194	3	.029	.6	40	do	do
	SEARCH LIGHTS	2	.00194	3	.029	.6	680	do	do
	CARGO LIGHTS	2	.00299	3	.036	3.6	60	do	do
	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	1	.07592	19	.072	89	250	rubber	Lead covered & armoured
	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								
	Lathe Peeler	1	.00299	3	.036	9	120	do	Lead covered
	Knife cleaner	1	.00299	3	.036	7	40	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 SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. Electrical Engineers. Date 2nd June 1925.
Wm. Ross AMEE.

COMPASSES.

Distance between electric generators or motors and standard compass 142 feet
 Distance between electric generators or motors and steering compass 140 feet
 The nearest cables to the compasses are as follows:—
 A cable carrying .3 Amperes 10 feet from standard compass 10 feet from steering compass.
 A cable carrying .6 Amperes 30 feet from standard compass 30 feet from steering compass.
 A cable carrying 4.6 Amperes 45 feet from standard compass 45 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 all courses in the case of the standard compass, and nil degrees on all courses in the case of the steering compass.

For SWAN, HUNTER & WIGHAM RICHARDSON LTD. Builder's Signature. Date 2nd June 1925.
Abtaughton

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. wireless.

Total Capacity of Generators 75 Kilowatts

The amount of Fee ... £ 30: - { When applied for, 23/5/25
 Travelling Expenses (if any): £ : : When received, 28/5/25 *WTA*

W. T. Badger.
 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.)