

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... FRI APR 13 1923

Date of writing Report 19... When handed in at Local Office 12/4/23 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle-on-Tyne Date, First Survey 5 Feb Last Survey 13 February 1923
Reg. Book. on the S.S. "Marjorie S." (Number of Visits 4)Built at Newcastle-on-Tyne. By whom built Swan Hunter & Wigham Richardson Yard No. 1193 When built 1923
Owners Port belonging to FRI APR 13 1923

Electric Light Installation fitted by Swan Hunter & Wigham Richardson Contract No. 1193 When fitted 1923.

System of Distribution Double wire

Pressure of supply for Lighting 110 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 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 —, 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 starboard side
is the ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yesif 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 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 YesMain Switch Boards, where placed on brackets secured to beams of side of vessel 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, 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

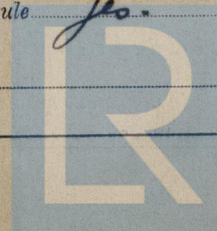
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Double pole linked switch + double pole fuses on dynamo mains, on each outgoing circuit double pole fuses + single pole switches

Instruments on main switchboard 1 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 earth lamps coupled to earth through switches + fuses

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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W 218-0064

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 3.6

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

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 *run in galvanised steel pipe under the gunwhale.*

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 braided ~~encased~~ 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.

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 _____

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 40, are separate screens provided for the use of oil and electric side lights 40

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 _____, 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....., are the coils self-contained and readily removable for replacement.....

are the brushes, brush holders, terminals and lubricating arrangements as per Rule _____, are the motors placed in well-ventilated compartments in which

inflammable gases cannot accumulate and clear of all inflammable material

are they protected from mechanical injury and damage from water, steam or oil. _____ are their axis of rotation fore and aft. _____

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 molors. and

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule..... No

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	1	647	110	579	steam engine			
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 Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR... ..	2	.0396	19	.052	57 ✓	20	Rubber	Lead covered
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER... ..								
	AUXILIARY SWITCHBOARDS								
D	ENGINE ROOM	2	.00455	Y	.029	Y ✓	16	"	50
	BOILER ROOM								
A	Navigation	2	.00455	Y	.029	Y ✓	230	"	Lead Cov + braided
B	Accommodation	2	.00455	Y	.029	10 ✓	75	"	50
C	Cargo	2	.00455	Y	.029	12 ✓	75	"	50
E	WIRELESS	2	.00455	Y	.029	15 ✓	220	"	50
	SEARCHLIGHT								
	MASTHEAD LIGHT... ..	2	.00152	1	.044	1	240	"	50
	SIDE LIGHTS	2	.00152	1	.044	1	40	"	50
	COMPASS LIGHTS	2	.00152	1	.044	3 ✓	30	"	50
	POOP LIGHTS	2	.00152	1	.044	1 ✓	360	"	50
	CARGO LIGHTS	2	.003	Y	.0076	3	120	"	Braided
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

[illegible]

W218-0064

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.

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Electrical Engineers.

Date 10th April 23.

COMPASSES.

Distance between electric generators or motors and standard compass 60

Distance between electric generators or motors and steering compass 90

The nearest cables to the compasses are as follows :—

A cable carrying .28 Amperes 1 feet from standard compass 1 feet from steering compass.

A cable carrying 7 Amperes 6 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 all course in the case of the standard

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

For SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

Builder's Signature.

Date 11th April 1923

Abelaughton

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, etc light.

It is submitted that
this vessel is eligible for
the RECORD. Elee light
21/4/23.

Total Capacity of Generators 6.49 Kilowatts

The amount of Fee ... £ 6 : :
Travelling Expenses (if any) : :
When applied for, 24/3/23.
When received, 31/3/23.

W.T. Badger
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

1m. 322.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

