

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London

8 AUG 1924

Date of writing Report 10 When handed in at Local Office - 7 AUG 1924 Port of SUNDERLAND.

No. in Survey held at SUNDERLAND. Date, First Survey 3rd July Last Survey 22 July 1924.
Reg. Book. (Number of Visits.....)

on the *Jamworth*

Tons { Gross 1332
Net 711

built at *Sunderland* By whom built *S. P. Austin & Son Ltd* Yard No. *306* When built *1924*

Owners *Robert Stanley Shipping Co Ltd* Port belonging to *Newcastle*

Electric Light Installation fitted by *Sunderland Forge & Engineering Co Ltd* Contract No. When fitted *1924*

System of Distribution *Two wire*
Pressure of supply for Lighting *110* volts, Heating *None* volts, Power *None* volts.

Direct or Alternating Current, Lighting *Direct* Power *none*

If alternating current system, state frequency of periods per second *none*

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 *only one fitted*

Where more than one generator is fitted are they arranged to run in parallel *only one fitted*, is an adjustable regulating resistance fitted in series with each shunt field *no*

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, Bottom Platform*, 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 *not so situated* 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 *Close to Generator*

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 *only one fitted*

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 *not so situated* 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 Switch and fuses for Generator. Single Pole Switches and Double Pole fuses for Outgoing Circuits*

Instruments on main switchboard *1* ammeters *1* voltmeters *no* 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 & twin 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 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 None fitted

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, Armoured & Braided Cables Slipped to Beams.

If cables are run in wood casings, are the casings and caps secured by screws none, are the cap screws of brass none, are the cables run in separate grooves none. 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

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 None fitted, are their connections made as per Rule none fitted.

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.

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 None fitted, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected none fitted, how are the cables led none fitted, where are the controlling switches situated none fitted.

Searchlight Lamps, No. of none fitted, whether fixed or portable None fitted, are their fittings as per Rule None fitted

Are Lamps, other than searchlight lamps, No. of none fitted, are their live parts insulated from the frame or case none fitted, are their fittings as per Rule none fitted

Motors, are their working parts readily accessible None fitted, are the coils self-contained and readily removable for replacement none fitted, are the brushes, brush holders, terminals and lubricating arrangements as per Rule None fitted, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material None fitted, are they protected from mechanical injury and damage from water, steam or oil None fitted are their axis of rotation fore and aft None fitted, 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 None fitted, if not of this type, state distance of the combustible material horizontally or vertically above the motors None fitted and None fitted.

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule None fitted

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule None fitted.

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 none

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office none.

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	3 1/2	110	32	480	Open Type Inverted Steam Engine	none	none
AUXILIARY	None							
EMERGENCY	None							
ROTARY TRANSFORMER	None							

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	2	.02214	7	.064	32	30	V.I.R.	Lead Covered Armoured & Braided
	AUXILIARY GENERATOR	None							
	EMERGENCY GENERATOR	None							
	ROTARY TRANSFORMER	None							
	AUXILIARY SWITCHBOARDS	None							
	ENGINE ROOM								
	BOILER ROOM	2	.00401	7	.036	6.5	50	V.I.R.	Lead Covered Armoured & Braided
	and Engineers Accommodation Saloon & Forward Navigation	2	.00401	7	.036	4.0	300	V.I.R.	Lead Covered Armoured & Braided
		2	.00401	7	.036	7.5	320	V.I.R.	Lead Covered Armoured & Braided
	WIRELESS	2	.00401	7	.036	12.5	320	V.I.R.	Lead Covered Armoured & Braided
	SEARCHLIGHT	None							
	MASTHEAD LIGHT	2	.00194	3	.029	1.1	250	V.I.R.	Lead Covered Armoured & Braided
		2	.00194	3	.029	1.1	220	V.I.R.	Lead Covered Armoured & Braided
	SIDE LIGHTS	2	.00194	3	.029	1.1	50	V.I.R.	Lead Covered
	COMPASS LIGHTS	2	.00194	3	.029	1.1	20	V.I.R.	Lead Covered
	POOP LIGHTS	None							
	CARGO LIGHTS	None							
	ARC LAMPS	None							
	HEATERS	None							

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	None							
	MAIN BILGE LINE PUMPS	None							
	GENERAL SERVICE PUMP	None							
	EMERGENCY BILGE PUMP	None							
	SANITARY PUMP	None							
	CIRC. SEA WATER PUMPS	None							
	CIRC. FRESH WATER PUMPS	None							
	AIR COMPRESSOR	None							
	FRESH WATER PUMP	None							
	ENGINE TURNING GEAR	None							
	ENGINE REVERSING GEAR	None							
	LUBRICATING OIL PUMPS	None							
	OIL FUEL TRANSFER PUMP	None							
	WINDLASS	None							
	WINCHES, FORWARD	None							
	WINCHES, AFT	None							
	STEERING GEAR	None							
	WORKSHOP MOTOR	None							
	VENTILATING FANS	None							

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.

p.pro. THE SUNDERLAND FORGE & ENGINEERING COMPANY LIMITED

[Handwritten signature]

Electrical Engineers.

Date 29th July 1924.

Director.

COMPASSES.

Distance between electric generators or motors and standard compass None
 Distance between electric generators or motors and steering compass 125 feet
 The nearest cables to the compasses are as follows :—
 A cable carrying 7.5 Ampères 10 feet from standard compass 10 feet from steering compass.
 A cable carrying .55 Ampères led into feet from standard compass led 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 0 degrees on each course in the case of the standard compass, and 0 degrees on each course in the case of the steering compass.

FOR S. P. AUSTIN & SON, LIMITED.

[Handwritten signature]
 MANAGER DIRECTOR

Builder's Signature.

Date 2nd August 1924.

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 installation has been satisfactorily fitted in the vessel tested and found good.

Total Capacity of Generators 3.5 Kilowatts

The amount of Fee ... £ 5 : : 24 July 24 When applied for.

Travelling Expenses (if any) £ : : 26 July 24 When received.

[Handwritten signature]

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 22. - Tr. or. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

