

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

23 AUG 1928

Date of writing Report 15. 5. 1928 When handed in at Local Office 27. 8. 1928 Port of GLASGOW.

No. in Survey held at PORT GLASGOW. Date, First Survey 30. 3. 28 Last Survey 3. 8 1928  
Reg. Book.

39866 on the S. S. ANNIE M. MILLER.

Built at PORT GLASGOW. By whom built THE CLYDE S. BROS. &amp; CO. Yard No. 355 When built 1928.

Owners MESSRS R. W. MILLER &amp; CO. Port belonging to SYDNEY N.S.W.

Electric Light Installation fitted by MESSRS CLAUD HAMILTON LTD. Contract No. 355 When fitted 1928

System of Distribution Double wire distributing fuse box.

Pressure of supply for Lighting 110 volts, Heating none volts, Power none 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 rating Yes, are they compound wound Yes.

are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator 1 only.

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, 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 5 Sect 2.

Position of Generators 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

No woodwork, and, are the generators protected from mechanical injury and damage from water, steam or oil

are their axes 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 near dynamo

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. Same compartment

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 none and

are they constructed wholly of durable, non-ignitable 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 insulated from the slab

with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes.

and is the frame effectively earthed Yes. Are the fittings as per Rule regarding 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.

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

D.P. main switch and fuses for generator and S. P. fuses switches and D.P. fuses for each circuit

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 lamp.

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes.

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Sect 6 rule 3.



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112224 mains then / are the cables insulated and protected as per Tables IV or V of the Rules. Yes. /

Cables: Single, twin, concentric, or multicore Branch wiring Single

Fall of Pressure, state maximum between bus bars and any part of the installation under maximum load 5 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 no tape

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 Y. 2. R. Lead covered and armoured and lead covered only clipped to under side of decks in bulkheads

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 VIII 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

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 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

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 none

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

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

-, how are the cables led -

where are the controlling switches situated -

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

Are 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 none, 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 axes 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 motors - and -

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 none.

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			Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Ampères.			Fuel Used.	Flash Point of Fuel.	
MAIN	1	8	110	43	350	Steam engine open type direct coupled to dynamo by means of W. B. Allen & Co	-	-	
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...	2	.06	19	.004	43	20	Y. 2. R.	Lead covered in tubing
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.002	3	.039	4	10	Y. 2. R.	Lead covered & Armoured
	BOILER ROOM								
	ACCOMMODATION	2	.0045	4	.029	14	40	Y. 2. R.	" " "
	Forward hangar	2	.0040	4	.036	14	220	Y. 2. R.	" " "
		2	.002	3	.029	3	90	Y. 2. R.	" " "
	WIRELESS								
	SEARCHLIGHT								
	MASTHEAD LIGHT...	2	.002	3	.039	1	140	Y. 2. R.	Lead & Armoured
	SIDE LIGHTS	2	.002	3	.039	1	20	" "	" "
	COMPASS LIGHTS								
	POOP LIGHTS								
	CARGO LIGHTS	8	.002	3	.029	3	80	Y. 2. R.	Lead & Armoured
	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								

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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 CLAUD HAMILTON, LIMITED

hail Lawrence

Electrical Engineers.

Date

#### COMPASSES.

Distance between electric generators or motors and standard compass 48

Distance between electric generators or motors and steering compass 44

The nearest cables to the compasses are as follows:—

A cable carrying 5 Ampères 10 feet from standard compass 10 feet from steering compass.

A cable carrying 19 Ampères 16 feet from standard compass 14 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 nil degrees on any course in the case of the standard compass, and nil degrees on any course in the case of the steering compass.

For and on behalf of

THE GLYDE SHIPBUILDING & ENGINEERING CO., LIMITED.

Builder's Signature.

Date

2<sup>nd</sup> Aug 1928.

Secretary

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.)

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.

It is submitted that this vessel is eligible for THE RECORD. Elec. Light.

12/9/28.

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... £ 8.0.0

When applied for,

When received,

Travelling Expenses (if any) £ 10.6.

23.10.28

J. S. Rankin.  
Secretary to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 28 AUG 1928

Assigned

Elec. Light.



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