



current protection devices been tested under working conditions yes ✓ **Joint Boxes, Section and Distribution Boards**, is the construction, protection, insulation, material, and position of these as per rule yes ✓

**Cables:** Single, twin, concentric, or multicore Single are the cables insulated and protected as per Tables IV, V, X or XI of the Rules yes ✓

If the cables are insulated otherwise than as per Rule, are they of an approved type yes ✓ **Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load 5 V. ✓ **Cable Sockets**, are the ends of all cables having a sectional

area of 0.04 square inch and above provided with soldering sockets yes ✓ **Paper Insulated and Varnished Cambric Insulated Cables.**

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound yes ✓, or waterproof insulating tape 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 ✓ Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit Lead covered armoured ✓

**Support and Protection of Cables**, state how the cables are supported and protected according to rules ✓

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 VIII yes ✓

**Refrigerated Chambers**, are the cables and fittings in accordance with the special requirements yes ✓

**Joints in Cables**, state if any, and how made, insulated, and protected made in iron case ✓

**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 brass ✓

**Earthing Connections**, state what earthing connections are fitted and their respective sectional areas yes ✓

are their connections made as per Rule yes ✓

**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 yes ✓

**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 in steering cabin ✓

has each navigation lamp an automatic indicator as per Rule yes ✓ **Secondary Batteries**, are they constructed and fitted as per Rule 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 no ✓

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no ✓

how are the cables led yes ✓

where are the controlling switches situated yes ✓

are all fittings suitably ventilated yes ✓, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials yes ✓

**Heating and Cooking Appliances**, are they constructed and fitted as per Rule yes ✓, are air heaters constructed and fitted as per Rule yes ✓

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

**Are Lamps**, other than searchlight lamps, No. of yes ✓, are their live parts insulated from the frame or case yes ✓, are their fittings as per Rule yes ✓

**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 ✓

water, steam or oil yes ✓ are their axes 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 yes ✓

if not of this type, state distance of the combustible material horizontally or vertically above the motors yes ✓ and yes ✓

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing yes ✓ **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 yes ✓ **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 yes ✓ are all fuses of the filled cartridge type yes ✓ are they of an approved type yes ✓

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office yes ✓

**Spare Gear**, if the vessel is for open sea service have spares been supplied as per Rule yes ✓

## 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	12	110	108	1000	main engine		
AUXILIARY ...	1	12	110	108	800	auxiliary engine		
EMERGENCY ...								
Rotary Transformer	1	2 1/4	110	25	1000	auxiliary engine		

## GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR ...	1	70 mde	19	2 1/2	109	125	72.06	Rubber	Lead armoured
EQUALISER CONNECTIONS ...									
AUXILIARY GENERATOR ...	1	70	19	2 1/2	109	125		"	" " "
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER MOTOR GENERATOR ...									
ENGINE ROOM ...									
BOILER ROOM ...									
AUXILIARY SWITCHBOARDS ...									
Auxiliary Generator	1	10	7	1 1/2	25	31	21	"	" " "
ACCOMMODATION ...									
WIRELESS ...									
SEARCHLIGHT ...									
MASTHEAD LIGHT ...	2	1 1/2	1	1 1/2	0.73	9	42.06	"	" " "
SIDE LIGHTS ...	2	1 1/2	"	1 1/2	0.73	11	8	"	" " "
COMPASS LIGHTS ...	2	1 1/2	"	1 1/2	0.36	11	16	"	" " "
POOP LIGHTS ...	2	1 1/2	"	1 1/2	0.73	11	16	"	" " "
CARGO LIGHTS ...	2	2 1/2	"	1 1/2	1.8	11	42	"	" " "
ARC LAMPS ...									
HEATERS ...									

## MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP ...	1	1	6	7	1.05	17	25	8	Rubber	Lead armoured
MAIN BILGE LINE PUMPS ...										
OIL SEPARATOR GENERAL SERVICE PUMP ...	1	1	6	7	4.05	18	25	10	"	" " "
EMERGENCY BILGE PUMP ...										
OIL HEATER SANITARY PUMP ...	1	1	10	7	1.35	18	35	11	"	" " "
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 ...	1	1	2 1/2	1	2 1/2	8	15	20	"	" " "
WINDLASS ...										
WINCHES, FORWARD ...	2	1	35	14	1.85	73	80	70	"	" " "
REFRIGERATOR ...	1	1	25	7	3.57	60	80	6	"	" " "
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR ...										
(b) MAIN MOTOR ...										
WORKSHOP MOTOR ...										
VENTILATING FANS ...										

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

*C. C. McQuinn* to *Elect. Tech. Bureau N.Y.* Electrical Engineers.

Date *13/1 - 38*

#### COMPASSES.

Distance between electric generators or motors and standard compass *42 ft*

Distance between electric generators or motors and steering compass *56 ft*

The nearest cables to the compasses are as follows:—

A cable carrying *0.5* Ampères *1* feet from standard compass *4* feet from steering compass.

A cable carrying *0.5* Ampères *1* feet from standard compass *4* feet from steering compass.

A cable carrying *1* Ampères *1* feet from standard compass *4* 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 *every* course in the case of the standard compass, and *0* degrees on *every* course in the case of the steering compass.

Builder's Signature.

Date

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *DURNESSE*

General Remarks (State quality of workmanship, opinions as to class, &c. *This installation has been*)

*fitted in accordance with the approved, Society's Rules and Secretary's letter, material tested as required and workmanship good. The whole was found in a good working condition when tried and merits in my opinion the approval of the Committee*

*Noted.*

*ASD*

*4.2.38*

Total Capacity of Generators *26* Kilowatts.

The amount of Fee ...

*246*

When applied for,

19

Travelling Expenses (if any) £

:

:

When received.

*28/2.38*

*gmK 1/3*

Committee's Minute

TUE. 8 FEB 1938

Assigned

*See other F.E. reports*



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