

current protection devices been tested under working conditions are all fuses labelled as per rule *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 Twin* are the cables insulated and protected as per Tables IV, V, X, XI, XII or XIII of the Rules *Yes*

If the cables are insulated otherwise than as per Rule, are they of an approved type **Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load *5.2 volts*

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 or waterproof insulating 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* are cables laid under machines or floorplates *Yes* if so, are they adequately protected *Yes*

Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit *Yes*

Support and Protection of Cables, state how the cables are supported and protected *As per rule - L.C.A. clips to steel tray*
As per rule - L.C. clips to iron work
Main Deck etc. - L.C.A. in galv pipe 1/2" dia, 1/2" dia, 1/2" dia, 1/2" dia

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, are the cables and fittings in accordance with the special requirements *Yes*

Joints in Cables, state if any, and how made, insulated, and protected *In Watertight metal Junction boxes.*

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 *Fibre or deal.*

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

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 are they ventilated as per Rule

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 *Centre castle space*

- fast type fittings Pump rooms - special fittings outside space.
Centre castle space - fast type tube Pump rooms - fast type tube wholly outside space

where are the controlling switches situated *Bridge accommodation alleyway.*

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 are air heaters constructed and fitted as per Rule

Searchlight Lamps, No. of *1* whether fixed or portable *Portable* 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* are they protected from mechanical injury and damage from water, steam or oil *Yes* are their axes of rotation fore and aft *Generally* 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

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing have certificates for all motors for essential services been supplied and approved *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 fitted 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 flameproof type approved for use in dangerous spaces *Yes*

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule *Yes* are they suitably stored in dry situations *Yes*

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	20	110	182	400	Steam Engine & Diesel Engine		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT AMPERES.		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	0.2	37	.083	182	184	64	V.I.R.	L.C.A.
GENERATOR CONNECTIONS	1	0.1	19	.083	-	118	120	do.	do.
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM	1	.04	19	.052	468	64	15	V.I.R.	L.C.A.
BOILER ROOM									
AUXILIARY SWITCHBOARDS	1	.12	37	.064	739	130	500	V.I.R.	L.C.A.
CREW ACCOM. S.B.	1	.0225	7	.064	244	46	160	V.I.R.	L.C.A.
NAVIGATION D.B.	1	.01	7	.044	29	31	570	V.I.R.	L.C.A. & L.C.
ACCOMMODATION									
WIRELESS	1	.0225	7	.064	10	46	570	V.I.R.	L.C.A. & L.C.
SEARCHLIGHT	1	.04	19	.052	20	64	1000	V.I.R.	L.C.A. & L.C.
MASTHEAD LIGHT	1	.002	3	.029	0.36	78	350	V.I.R.	L.C.A. & L.C.
SIDE LIGHTS	1	.002	3	.029	0.36	78	160	V.I.R.	L.C.
COMPASS LIGHTS	1	.002	3	.029	0.1	78	20	V.I.R.	L.C.
STEER LIGHT	1	.002	3	.029	0.36	78	672	V.I.R.	L.C.A. & L.C.
CARGO LIGHTS S.B.	1	.04	19	.052	17.1	64	160	V.I.R.	L.C.A.
HEATERS									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT AMPERES.		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										
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	1	1	.06	19	.064	61	83	128	V.I.R.	L.C.A.
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
ENGR. AUX. S.B.	5	1	.06	19	.064	89.7	83	128	V.I.R.	L.C.A.
WINCHES, AFT										
VENT. FAN. S.B.	2	1	.06	19	.064	50	83	160	V.I.R.	L.C.A.
STEERING GEAR										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FAN FOR	1	1	.0225	7	.064	25	46	240	V.I.R.	L.C.A. & L.C.
do AFT.	1	1	.0225	7	.064	25	46	165	V.I.R.	L.C.A.
DRILL	1	1	.0045	7	.029	17.7	182	112	V.I.R.	L.C.A.
LATHE	1	1	.0045	7	.029	13.8	182	96	V.I.R.	L.C.A.
LUB. OIL PURIFIER	1	1	.0045	7	.029	17.8	182	80	V.I.R.	L.C.A.
STANDBY FUEL OIL	1	1	.0045	7	.029	15.9	182	64	V.I.R.	L.C.A.
GRINDER.	1	1	.01	7	.044	24.5	31	80	V.I.R.	L.C.A.



The Electrical Equipment is installed in accordance with the approved plans.
 All Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

BY THE UNDERSIGNED *William* & ENGINEERING CO. LTD.

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass 40 ft. approx.

Minimum distance between electric generators or motors and steering compass 34 ft. approx.

The nearest cables to the compasses are as follows:—

A cable carrying 0.1 Ampères *m* feet from standard compass 6 feet from steering compass.

A cable carrying 0.1 Ampères 6 feet from standard compass *m* feet from steering compass.

A cable carrying 2.9 Ampères 12 feet from standard compass 6 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 $\frac{1}{2}^{\circ}$ W degrees on N.W. 0 3 E course in the case of the standard compass, and 1° W degrees on N.N.E - N.E - W.S.W - S course in the case of the steering compass.

FOR AND ON BEHALF OF
CAMMELL LAIRD & CO. LIMITED

John

Builder's Signature.

Date 20 MAY 1939

MANAGER

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 and in accordance with the approved plans and has been tested under full working conditions and found satisfactory. The materials and workmanship have been found to be good and sound.*)

*Noted
 J.Y.
 1/6/39*

Total Capacity of Generators 40 Kilowatts.

The amount of Fee ... £ 25 : —
 Travelling Expenses (if any) £ : :
 When applied for 31 MAY 1939
 When received 16.6 19 17/16

R. C. Clayton
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 31 MAY 1939

Assigned *See minute on P.C. Machinery*



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 Foundation

20.12.36.—Transfer. The Surveyors are requested not to write on or below the space for Committee's Minute.