

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 16426

8 - MAR 1926

Date of writing Report 22 Feb 1926 When handed in at Local Office 6.3.26 19 Port of **HAMBURG**

To. in Survey held at **Kiel** Date, First Survey 30 December 1925 Last Survey 12 January 1926

Reg. Book. No. 44 on the **Steel Twin Sc. Motor T. MONTROLITE** Tons { Gross 4209 Net 6668

Built at **Kiel** By whom built **FRIED. TRUPP. GERTMANIERF. A.G.** Yard No. 480 When built 1926

Owners **IMPERIAL OIL CO.** Port belonging to **TORONTO**

Electric Light Installation fitted by **FRIED. TRUPP. GERTMANIERF. A.G.** Contract No. When fitted 1926

System of Distribution **2 wire - 2 conductor insulated with separate conductors, except small cables**

Pressure of supply for Lighting **110** volts, Heating **230** volts, Power **230** volts.

Direct or Alternating Current, Lighting **Direct Current**

If alternating current system, state frequency of periods per second **Yes**

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

Where more than one generator is fitted are they arranged to run in parallel **Yes**, 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 **Yes**

Position of Generators **Engine room, steam driven emergency set in intermediate of the 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

and **Yes**, are the generators protected from mechanical injury and damage from water, steam or oil **Yes**

are their axes of rotation fore and aft **Yes**, with the exception of steam driven emergency set are the prime movers and

Earthling, are the bed-plates and frames of the generating plant efficiently earthed **Yes**

their respective generators in metallic contact **Yes**

Main Switch Boards, where placed **Engine room forward on elevated platform, emergency set close to oil**

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

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

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 **Yes**

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches **For each generator: 1 double**

pole circuit breaker with overload and reversed current trips, interlocked by equalizer switch. For

each outgoing circuit: 1 live on each pole and a single pole switch on one pole

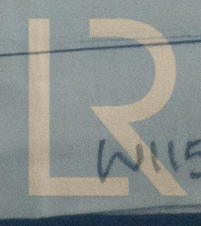
Instruments on main switchboard **4** ammeters **1** voltmeters **1** synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system **Insulation meters and pump**

alarm arrangements

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 **Yes**



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The Common Standard have been applied

Cables: Single, twin, concentric, or multicore *single wire* are the cables insulated and protected as per Tables IV or V of the Rules. *Generally*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *about 5% for power, 3% for light.*

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 paper insulated cables*

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. *armoured cables clipped and in troughs*

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, if lights are fitted, are the cables and fittings in accordance with the special requirements *yes*

Joints in Cables, state if any, and how made, insulated, and protected *water gas tight joint used.*

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 *yes*

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 *1 small diesel driven on main*
starting arrangement dynamo in engine room from deck. 1 steam driven in shellies deck
separate compartment. etc.

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 *yes*

Fittings, are all fittings on weather decks, in storerooms and engine rooms and where 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 *yes*
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected. yes, gas tight fittings, lamps protected by flame glass bowls.
yes light fitting
 where are the controlling switches situated *double pole switches on deck outside the spaces.*

Searchlight Lamps, No. of *2*, whether fixed or portable *portable*, 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, located 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 *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*

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

Lighting Conductors, where lighting conductors are required, are these fitted as per Rule *Yes made.*

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*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *yes*

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	each 100	330	435	275	2 cyl. 450 H.P. Diesel engine	Diesel Gas-oil	170° F.
AUXILIARY	1	60	330	360	360	2 cyl. 100 H.P. Diesel engine	Diesel Gas-oil	170° F.
EMERGENCY	1	17	330	74	370	2 cyl. 100 H.P. Diesel engine	Diesel Gas-oil	170° F.
ROTARY TRANSFORMER	1	15	115	130	3000	2 cyl. 100 H.P. Diesel engine	Diesel Gas-oil	170° F.

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor, Sq. In.	COMPOSITE OF STRANDS.		Total Maximum Current, Amperes.	Approximate Length, (Lead and Return), Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	4	25	19	2.5	435	164		
	EQUALISER CONNECTIONS	1	130	27	2.05				
	AUXILIARY GENERATOR	4	45	19	2.5	360	164		
	EMERGENCY GENERATOR	2	35	19	2.5	74	16		
	ROTARY TRANSFORMER...	2	70	19	2.5	130	30		
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	8	4	1	2.5	40	30 to 100		
	BOILER ROOM								
	ACCOMMODATION								
	Upper deck.	6	4	1	2.5	30	40		
	Lower deck.	2	4	1	2.5	50	30		
	Bridge deck	6	4	1	2.5	48	140		
	Control Room, Lamp.	2	4	1	2.5	5	160		
	Telephone.	2	1.5	1	1.4	2	180		
	WIRELESS	2	6	1	2.75	12	135		
	SEARCHLIGHT	2	10	7	1.35	35	265		
	MASTHEAD LIGHT	2	3.5	1	1.8	0.5	110-175-200		
	SIDE LIGHTS	2	3.5	1	1.8	0.5	30		
	COMPASS LIGHTS	2	1.5	1	1.4	0.5	48		
	POOP LIGHTS	2	1.5	1	1.4	0.5	330		
	CARGO LIGHTS	2	2.5	1	1.8	3	100		
	ARC LAMPS								
	HEATERS	2	95	19	2.5	150	70 to 240		

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor, Sq. In.	COMPOSITE OF STRANDS.		Total Maximum Current, Amperes.	Approximate Length, (Lead and Return), Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	25	2	2.12	61	36		
	MAIN BILGE LINE PUMPS	2	35	7	2.1	60	32		
	GENERAL SERVICE PUMP	1	6	1	2.75	30	38		
	SAINT-PIERRE PUMP	1	35	7	2.1	72	32		
	SANITARY PUMP	1	50	19	1.85	97	16		
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR	2	16	2	1.7	46.5	56		
	FRESH WATER PUMP	1	15	1	1.8	8.2	42		
	ENGINE TURNING GEAR	2	70	19	2.15	134	530		
	REVERSE ENGINE GEAR	1	16	7	1.7	47	68		
	LUBRICATING OIL PUMPS	2	25	1	1.8	12	76		
	OIL FUEL TRANSFER PUMP	1	240	61	2.5	340	370		
	WINDLASS								
	WINCHES, FORWARD	2	35	19	1.55	96.5	150-200		
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR	2	50	19	1.85	107	100		
	(b) MAIN MOTOR	2	4	1	2.25	12	32-36		
	WORKSHOP MOTOR	1	25	1	1.8	6.5	32		
	VENTILATING FANS	1	3.5	1	1.8	6.5	38		
	SAINT-PIERRE PUMP	2	4	1	2.25	18	80		
	SAINT-PIERRE PUMP	1	1.5	1	1.4	4	16		
	SAINT-PIERRE PUMP	1	25	19	1.55	92	25		
	SAINT-PIERRE PUMP	2	25	1	1.8	16.5	6		
	SAINT-PIERRE PUMP	1	3.5	1	1.8	6.5	4		
	SAINT-PIERRE PUMP	2	25	1	1.8	12	30		
	SAINT-PIERRE PUMP	2	2.5	1	1.8	10.9	40		
	SAINT-PIERRE PUMP	1	2.5	1	1.8	2.5	165		

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.

The finders are the

Electrical Engineers.

Date 23/2/26.

COMPASSES.

Distance between electric ~~generators~~ or motors and standard compass } about 15 ft.

Distance between electric ~~generators~~ or motors and steering compass }

The nearest cables to the compasses are as follows:—

A cable carrying 0.5 Ampères close to feet from standard compass close to feet from steering compass.

A cable carrying " Ampères " feet from standard compass " 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. *nil*

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 " course in the case of the standard compass, and *nil* degrees on " course in the case of the steering compass.

FRIED. KRUPP
GERMANIAWERFT
Aktiengesellschaft

Builder's Signature.

Date 23/2/26

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *PEREPHONE "ONTARIO" LITE*

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship and material of this Electric*)

Installation are of good quality. As the conductors used are of the "German Standard" the Society's Rules respecting conductors have been applied generally. The installation has been fitted in accordance with the approved plans, the Society's letters and other wire in conformity with the requirements of the Rules under Special Survey and is eligible in my opinion for record of "ELECT. LIGHT."

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

AWD
9/3/26

Total Capacity of Generators *286* Kilowatts.

The amount of Fee ... £ *38* : *13* : *17* When applied for, 17th Feb. 1926.

Travelling Expenses (if any) £ : : When received, 12/3/26.

Committee's Minute FRI. 19 MAR 1926

Assigned *Elec Light*

Friedrich
Surveyor to Lloyd's Register of Shipping.



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