

Rpt. 13.

No. 2173

**REPORT ON ELECTRICAL EQUIPMENT.**

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

3 FEB 1954

Date of writing Report 12-11-1952 When handed in at Local Office 1952 Port of Toronto, Canada.

No. in Survey held at Erieau, Ontario Date, First Survey 14-7-52 Last Survey 23-10-1952

Reg. Book. (No. of Visits 5)

on the M.V. "THE ST. JOSEPH ISLANDER" Tons { Gross 130.10

Built at Erieau, Ontario By whom built Erieau Shipbuilding &amp; Dry Dock Co. Ltd. Yard No. 64 When built 1952

Owners Ontario, Department of Highways Port belonging to TORONTO, Ontario.

Installation fitted by Bert Gander Electrical Co., Blenheim, Ontario. When fitted 1952

Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No Radar No

Plans, have they been submitted and approved Yes System of Distribution Two Wire Voltage of Lighting 120

Heating - Power 120 D.C. or A.C., Lighting A.C. Power A.C. If A.C. state frequency 60 cycle

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted with a trip switch - Generators, are they compound wound single phase, and level compounded under working conditions. No

Are the generators arranged to run in parallel. No Is the compound winding connected to the negative or positive pole -

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing. None Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule. Yes Position of Generators -

Engine Room - One Port and other Starboard - Main Platform Level

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil. Yes Switchboards, where are main switchboards placed. Engine Room - Port side Aft

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil. Yes, what insulation is used for the panels. Arborite, if of synthetic insulating material is it an Approved Type. Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. - Is the construction as per Rule, including locking of screws and nuts. Yes Description of Main Switchgear for each generator and arrangement of equaliser switches. Double Pole Knife Switch for each Generator.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. Knife Switch and Fuses for each Circuit

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard. 2

ammeters. 2 voltmeters. No synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection. - Earth Testing, state means provided. -

Earth Lamps Preference Tripping, state if provided. - and tested. -

Switches, Circuit Breakers and Fuses, are they as per Rule. Yes, are the fuses an Approved Type. Yes

make of fuses. Jefferson, are all fuses labelled. Yes If circuit breakers are provided for the generators, at what

overload do they operate. - and at what current do the reverse current protective

devices operate. - Cables, are they insulated and protected as per Rule. Yes

if otherwise than as per Rule are they of an Approved Type. - state maximum fall of pressure between bus bars and any point

under maximum load. - volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends. Yes

Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical

damage. Yes, are any cables laid under machines or floorplates. No, if so, are they adequately protected. - State

type of cables (if in conduit this should also be stated) in machinery spaces. R.I., L.C., S.W.B., gutters and B.W.B. Nore Conduit

and laundries. - State how the cables are supported or protected. On Suitable Galvanised Trays

Adequately Supported

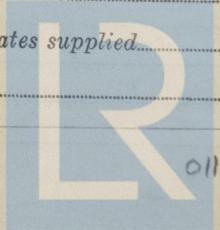
Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Are all cables passing through decks and watertight

bulkheads provided with deck tubes or watertight glands. Yes, where unarmoured cables pass through beams, etc., are the holes

effectively bushed. Yes Refrigerated chambers, are the cables and fittings as per Rule. -

Have refrigeration fan motors been constructed under survey. - and test certificates supplied. -

Are the motors accessible for maintenance at all times. -



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... **Yes**... Emergency Supply, state position **None**

Navigation Lamps, are they separately wired... **Yes**... controlled by separate double pole switches and fuses... **Yes**... Are the switches and fuses in a position accessible only to the officers on watch... **Yes**... is an automatic indicator fitted... **Yes**... Is an alternative supply provided... **Yes**...

Secondary Batteries, are they constructed, fitted and adequately ventilated as per Rule... **-**... state battery capacity in ampere hours... **-**... Where required to do so does it comply with 1948 International Convention... **-**...

Lighting, is fluorescent lighting fitted... **No**... If so, state nominal lamp voltage... **-**... and compartments where lamps are fitted... **-**...

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... **Yes**...

**Watertight fixtures used throughout**

Searchlights, No. of **One**... whether fixed or portable... **Fixed**... are they of the carbon arc or of the filament type... **Filament**

Heating and Cooking, is the general construction as per Rule... **-**... are the frames effectually earthed... **-**... are heaters in the accommodation of the convection type... **-**... Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil... **Yes**

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment... **-**... Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing... **Yes**

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule... **-**...

Lightning Conductors, where required are they fitted as per Rule... **None**

Ships carrying Oil having a Flash Point of less than 150° F. Have all the special requirements of the Rules for such ships been complied with... **-**... are all fuses of an Approved Cartridge Type... **-**... make of fuse... **-**... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships... **-**... Are all cables lead covered as per Rule... **-**...

E.S.D., if fitted state maker... **-**... location of transmitter and receiver... **-**...

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations... **Restricted Waters Service**

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory... **Yes**

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				TYPE.	PRIME MOVER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN	2	United States Motor Corp Oshkosh, Wisconsin, U.S.A.	5K.W.	120	52	1800	Diesel 4 cyl. x 3 5/6" x 3 3/4" Waukesha, Motor, Coy. Wisconsin, U.S.A.	
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2	5each	None	7/.0974	52	A.L.E.E. 96	16	R.I.	Lead Sheathed Steel Bradd Armour
" EQUALISER									
EMERGENCY GENERATOR			None						
ROTARY TRANSFORMER: MOTOR			None						
" " GENERATOR			None						

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
NONE							

DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.).

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Navigation Panel	1	7/.0242	2.5	44	50	Rubber	L.C.S.B.A.
Accommodation Lighting Panel	1	7/.0305	8.3	44	50	Rubber	L.C.S.B.A.
Engine Room Lighting Panel	1	7/.0242	5.5	44	40	Rubber	L.C.S.B.A.
Shore Connection Box	-	7/.0974	52	96	50	Rubber	L.C.S.B.A.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Whistle Air Compressor Motor	1	0.5	-	7/.0385	2.4	44	45	Rubber	L.C.S.B.A.
Sanitary Pump Motor	1	0.25	-	7/.0242	1.6	44	45	Rubber	L.C.S.B.A.
General Service Pump Motor	1	3.0	-	7/.0612	38	63	90	Rubber	L.C.S.B.A.
Heating Unit Motor	1	0.25	-	7/.0242	2.5	44	80	Rubber	L.C.S.B.A.

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

ERIEAU SHIPBUILDING & DRYDOCK CO. LTD.

*D. H. Goodison*

Electrical Contractors.

Date *Jan 11 1954*

#### COMPASSES.

Have the compasses been adjusted under working conditions Yes

ERIEAU SHIPBUILDING & DRYDOCK CO. LTD.

*D. H. Goodison*

Builder's Signature.

Date *Jan 11 1954*

Have the foregoing descriptions and schedules been verified and found correct Yes

Is this installation a duplicate of a previous case No If so, state name of vessel -

Plans. Are approved plans forwarded herewith Yes If not, state date of approval 28th March, 1952.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith Yes

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

The Electrical Equipment was installed, under Special Survey, in an efficient and satisfactory manner and the materials and workmanship were good and in accordance with the Rules and approved plans.

The equipment was satisfactorily megger tested throughout and was subjected to full load trials, with satisfactory results.

In my opinion the Electrical Equipment is good and efficient, and suitable for a vessel classed in this Society for "Restricted Waters Service"

#### List of Electrical Plans Forwarded

(1) Switchboard Schematic - No. W139-EL-1

(2) Wire Diagram of Switchboard No. D-27062-S

#### Certificates

(1) Main Generators - Serial RA-12704 and RA-12705

Total Capacity of Generators 10 Kilowatts.

The amount of Fee ... \$108.00 : When applied for, Jan 19 19 53

Travelling Expenses (if any) £ : : 19

*E. J. White.*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

**FRIDAY - 6 AUG 1954**

Assigned

*See Hpt. 1*