

met Rpt.

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

5 DEC 1946

Received at London Office

Date of writing Report 7th Nov. 1946 When handed in at Local Office 8th Nov. 46 Port of QUEBEC, P.Q.

No. in Survey held at Quebec, P.Q. Date, First Survey 1st June Last Survey 31st Oct. 1946

Reg. Book. 88367 on the Steel Single Screw Motor Vessel "MAYGLEN" (ex "Ottawa Mayglen") Tons { Gross 342.26  
Net 117.20

Built at Quebec, P.Q. By whom built St. Lawrence Metal and Marine Works Inc. Yard No. 67 When built 1946

Owners Mayglen Shipping Co. Port belonging to Mort real

Electric Light Installation fitted by Whitley Electric Co. Contract No. \_\_\_\_\_ When fitted 1946

Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution Twin Wire

Pressure of supply for Lighting 110 volts, Heating -- volts, Power 110 volts.

Direct or Alternating Current, Lighting D.C. Power D.C.

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 temperature rise 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 --, is an adjustable regulating resistance fitted in series with each shunt field Yes

Have certificates of test results for machines under 100 kw. been submitted and approved Yes

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing --

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 Starboard Side in Engine Room, bottom platform, 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 --

are the generators protected from mechanical injury and damage from water, steam or oil Yes, 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 Starboard side in Engine Room, 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 --

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 -- 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

is it of an approved type Yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework --

is the non-hygroscopic insulating material of an approved type --

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, temperature rise of omnibus bars Yes

individual fuses to voltmeter, pilot or earth lamp Yes, are moving parts of switches alive in the "off" position No

are all screws and nuts securing connections effectively locked Yes are any fuses fitted on the live side of switches No

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches 250 Amp. Triple pole, air circuit breaker with I.T.L. overload, one low voltage release and one reverse current trip. 3 - 60 amp. D.T.S.P. and 4 - 30 amp. D.P.S.T.

Are turbine driven generators fitted with emergency trip switch as per rule -- Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material --

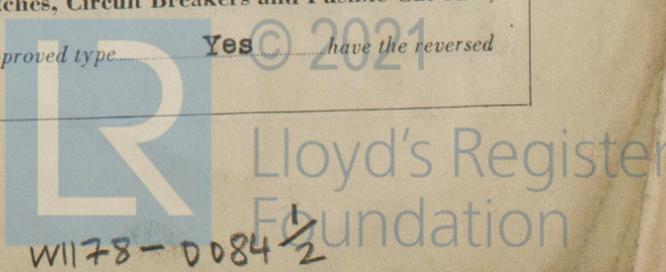
Instruments on main switchboard Two ammeters One volt-meters One

synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection --

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system --

Switches, Circuit Breakers and Fusible Cut-outs, Earth Lamps

do these comply with the requirements of the Rules Yes are the fusible cutouts of an approved type Yes have the reversed



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Is each... Can the... Inject... Seamle... Starti... Seamle... IS A... Is the... PL... Donke... Oil Fu... Has the... State th... Da... of Sa... wh... build... Dates... Crank... Screw s... Compl... Crank... Thrust... Tube... Identifi... Is the f... Have t... Is the... If the... Is th... Gen... tes... com... Mai... ord... The... The... wasl... be... For... The... Do... Tra... Com... Assi...

current protection devices been tested under working conditions  **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  **Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load** **3%**

**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 in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit** **& Conduit**

**Support and Protection of Cables, state how the cables are supported and protected** **R.C.D.B. in Engine Room, holds and crew accommodation and lead covered in officers' accommodation all suitably clipped.**

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** **XI**  **---**

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

**Joints in Cables, state if any, and how made, insulated, and protected** **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** **state the material of which the bushes are made** **Lead**

**Earthing Connections, state what earthing connections are fitted and their respective sectional areas** **Frame welded to Hull**

**No. 10 cable to frame,**  **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**  **---**

**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**  **---**

**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**  **---**, **how are the cables led**  **---**

**where are the controlling switches situated**  **---**

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

**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**  **---**, **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**  **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**  **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**  **---**, **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**  **---** **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**  **---** **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**  **---** **are all fuses of the filled cartridge type**  **---** **are they of an approved type**  **---**

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

**Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule** **Coastal Vessel.**

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Amperes	Rev. per Min.		Fuel Used	Flash Point of Fuel
MAIN	1	15	110	132	575	Vertical Steam Engine	--	--
AUXILIARY								
EMERGENCY	1	10			1500	Red Engine		
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	.1660	19	.1055	123	164	44	R.C.D.B.	Conduit
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR	1	.0030	7	.0242	9.3	12.9	800	R.C.D.B.	Conduit
ENGINE ROOM Circuits	4	.0030	7	.0242	1.8	12.9	200	R.C.D.B.	Conduit
BOILER ROOM Circuit	1	.0030	7	.0242					
AUXILIARY SWITCHBOARDS									
1-6 Way ER & BR	1	.0080	7	.0385	15.9	26.4	30	R.C.D.B.	Conduit
1-8 Way Accom.	1	.0130	7	.0486	25.9	34.8	120	R.C.D.B.	Conduit
1-6 Way Ventilation	1	.0205	7	.0612	36	43.3	120	R.C.D.B.	Conduit
1-3 Way Motor Pumps	1	.0080	7	.0385	16.8	26.4	60	R.C.D.B.	Conduit
1-8 Way Cargo Lights	1	.0130	7	.0486	28.5	34.8	100	R.C.D.B.	Conduit
1-5 Way Nav. Lights	1	.0030	7	.0242	1.8	12.9	100	R.C.D.B.	Conduit
1-4 Way Hold Vent. ACCOMMODATION Branch.	1	.0130	7	.0486	25.2	34.8	40		
Circuits Officers	1	.0030	7	.0242	10.6	12.9	1400	R.I.L.C.	
Circuits Crew	1	.0030	7	.0242	9.5	12.9	1200	R.C.D.B.	Conduit
WIRELESS									
SEARCHLIGHT	1	.0030	7	.0242	.45	12.9	240	R.C.D.B.	Conduit
MASTHEAD LIGHT	1	.0030	7	.0242	.45	12.9	60	R.I.L.C.	
SIDE LIGHTS each	1	.0030	7	.0242	.45	12.9	12	R.I.L.C.	
COMPASS LIGHTS	1	.0030	7	.0242	.45	12.9	180	R.C.D.B.	Conduit
POOP LIGHTS Stern	1	.0030	7	.0242	.45	12.9	200	R.C.D.B.	Conduit
CARGO LIGHTS Cir. each	1	.0030	7	.0242	4.3	12.9	300	R.C.D.B.	Conduit
XXX LAMPS Floodlight	1	.0030	7	.0242	5.4	12.9			

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										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS	1	1	.0050	7	.0305	12.6	19.6	40	R.C.D.B.	Conduit
Diesel OIL TRANSFER PUMP	1	1	.0050	7	.0305	4.2	19.6	70	R.C.D.B.	Conduit
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR—										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS Circ. each	5	1	.0050	7	.0305	6.3	19.6	80	R.C.D.B.	Conduit
Frig. Motor 1/2 HP	1	1	.0050	7	.0305	4.2	19.6	320	R.C.D.B.	Conduit
Hold Ventilating Fans each 1/2 HP	4	1	.0050	7	.0305	6.3	19.6	240	R.C.D.B.	Conduit

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.

WHITLEY ELECTRIC CO. LTD.  
681-685 COMMON ST.  
MONTREAL, QUE.

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying .45 Ampères -- feet from standard compass 6 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

The maximum deviation due to electric currents was found to be degrees on course in the case of the standard

compass, and degrees on course in the case of the steering compass.

WHITLEY ELECTRIC CO. LTD.  
681-685 COMMON ST.

Builder's Signature

Builder's Signature.

Date

Is this installation a duplicate of a previous case Yes If so, state name of vessel "MAYMERE" (ex "Ottawa Maymere")

General Remarks (State quality of workmanship, opinions as to class, &c. The Electrical installation has been

fitted aboard this Vessel under Special Survey and in accordance with Approved Plans and

Specifications and has been satisfactorily tested under full working conditions.

Megger tested throughout and found in good order.

The workmanship and materials are good and sound.

Total Capacity of Generators 15 Kilowatts.

The amount of Fee \$ 75.00 : When applied for, Nov. 20 1946  
Travelling Expenses (if any) \$ 10.00 : When received, 19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 4 JUN 1946

Assigned

See F.E. mch. rpt.

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