

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office: 30 DEC 1942

Date of writing Report: Oct. 28 1942 When handed in at Local Office: Oct. 30 1942 Port of: QUEBEC, P. Q.

No. in Survey held at: Lauzon, P. Q. Date, First Survey: 8th May Last Survey: 20th Oct. 1942  
Reg. Book. (Number of Visits: 24)

on the Steel Single Screw Steamer "FORT CATARAQUI" Tons { Gross 7130.35  
Net 4242.61

Built at: Lauzon, P. Q. By whom built: Davie Shipbldg. & Rpg. Co. Yard No. 538 When built: 1942

Owners: Ministry of War Transport Port belonging to: Montreal.

Electrical Installation fitted by: Davie Shipbuilding & Repairing Co. Ltd. Contract No. 538 When fitted: 1942.

Is vessel fitted for carrying Petroleum in bulk: No Is vessel equipped with D.F.: Yes E.S.D.: Yes Gy.C.: - Sub.Sig.: -

Have plans been submitted and approved: Yes System of Distribution: 2 wire D.C. Voltage of supply for Lighting: 110

Heating: - Power: - Direct or Alternating Current, Lighting: D.C. Power: - If Alternating Current state periodicity: - Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off: Yes Are turbine emergency governors fitted with a

trip switch as per Rule: - Generators, are they compound wound: Yes, are they level compounded under working conditions: Yes,

if not compound wound state distance between generators: - and from switchboard: - Where more than one generator is fitted are they

arranged to run in parallel: No, are shunt field regulators provided: Yes Is the compound winding connected to the negative or positive pole

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

test for machines under 100 kw. been supplied: Yes and the results found as per rule: Yes Are the lubricating arrangements and the construction

of the generators as per rule: Yes Position of Generators: Both fitted on starb'd side in Engine room.

is the ventilation in way of generators satisfactory: Yes are they clear of inflammable material: Yes, if situated

near unprotected combustible material state distance from same horizontally: - and vertically: -, are the generators protected from mechanical

injury and damage from water, steam and oil: Yes, are the bedplates and frames earthed: Yes and the prime movers and generators in metallic

contact: Yes Switchboards, where are main switchboards placed: Starb'd side in Engine Room

are they in accessible positions, free from inflammable gases and acid fumes: Yes, are they protected from mechanical injury and damage from water, steam

and oil: Yes, if situated near unprotected combustible material state distance from same horizontally: - and vertically: -, what insulation

material is used for the panels: Ebony asbestos 3/4" thick, if of synthetic insulating material is it an Approved Type: -, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule: - Is the frame effectually earthed: Yes

Is the construction as per Rule: Yes, including accessibility of parts: Yes, absence of fuses on the back of the board: None, individual fuses

to pilot and earth lamps, voltmeters, etc.: Yes locking of screws and nuts: Yes, labelling of apparatus and fuses: Yes, fuses on the "dead"

side of switches: Yes Description of Main Switchgear for each generator and arrangement of equaliser switches: One 200 amp. quick

break double pole single throw switch.

and for each outgoing circuit: Two 60 amp. and one 30 amp. fused quick break DPDT switches each board,

for'd board one 200 amp. aft board one 100 amp fused QB. DPDT quick break switches.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule: - Instruments on main switchboard: Two

ammeters: Two voltmeters: - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection: - Earth Testing, state means provided: Earth lamps

Switches, Circuit Breakers and Fuses, are they as per Rule: Yes, are the fuses an approved type: Yes, are all fuses labelled as

per Rule: Yes If circuit breakers are provided for the generators, at what overload current did they open when tested: -, are the reversed current

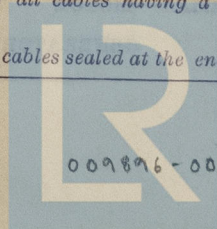
protection devices connected on the pole opposite to the equaliser connection: -, have they been tested under working conditions, and at what current

did they operate: - Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule: Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules: 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: -, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets: Yes Are paper insulated and varnished cambric insulated cables sealed at the ends: None fitted.





with insulating compound. or waterproof insulating tape. 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 cables laid under machines or floorplates. Yes, if so, are they adequately protected. Yes. Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. Both. State how the cables are supported and protected. Wiring enclosed in steel conduit throughout vessel and secured by metal clips spaced in accordance with Rules. Generator cables run under floorplates to switchboard in conduit.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes. Refrigerated chambers, are the cables and fittings as per Rule. 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 and with what material. Lead bushings. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes. Emergency Supply, state position. None fitted. and method of control.

Navigation Lamps, are they separately wired. Yes, controlled by separate double pole switches. Yes, 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. Secondary Batteries, are they constructed and fitted as per Rule. Yes, are they adequately ventilated. Yes. What is the battery capacity in ampere hours. Only used for alarm bells, echo sounder and wireless.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. No, if so, how are they protected.

and where are the controlling switches fitted. are all fittings suitably ventilated. are all fittings and accessories constructed and installed as per Rule. Searchlight Lamps, No. of, whether fixed or portable. are their fittings as per Rule. 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. Yes, and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. Yes, if situated near unprotected combustible material state minimum distance from same horizontally. and vertically. Are motors coupled to oil fuel transfer and unit 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. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. No. Control Gear and Resistances, are they constructed and fitted as per Rule. Yes. Lightning Conductors, where required are they fitted as per Rule. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with. are all fuses of the cartridge type. are they of an approved type. Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. Are the cables lead covered as per Rule. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule. Yes, are they suitably stored in dry situations. Yes. 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	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	15 each	110	136	575	Vertical steam eng.	-	-
EMERGENCY								
ROTARY TRANSFORMER								

#### GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	15		1320	136	142	30	RCDB	Conduit.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

#### MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
1 Section Board for'd 4-way	1	19-083	70	121	280	RCDB	Conduit
1 " " aft 4-way	1	7-097	59	76	280	"	"
Refrigerator 2 H.P. motor	1	7-038	14	26	240	"	"
Wireless Telegraph	1	7-097	-	76	120	RCLC	Partly in conduit
Distribution Boxes							
1 6-way Nav. & Bridge Lights	1	7-077	25	57	30	RCDB	Conduit
1 6-way Bridge House Lights	1	7-077	18	57	10	"	"
1 6-way for'd Cargo Lights	1	7-077	14	57	210	"	"
1 8-way Engine house lights	1	7-077	23	57	10	"	"
1 8-way Crews Accommodation	1	7-077	10	57	360	"	"
1 4-way amidship cargo lights	1	7-077	9	57	10	"	"
1 4-way aft cargo lights	1	7-077	16	57	190	"	"
1 8-way Engine & Boilerroom lights	1	7-077	13	57	50	"	"
1 2-way Engine Room fan	1						

#### LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7-097	-	76	80	RCLC	
NAVIGATION LIGHTS	1	7-024	4	13	50	"	
LIGHTING AND HEATING	1	7-024	4	13	4500	"	
Aux. Switchboard							
Degaussing	1	19-083	92	121	30	RCDB	Conduit

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.					
Refrigerator Motor	1	2	1	7-038	26	280	RCDB



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.

DAVIE SHIPBUILDING & REPAIRING CO. LTD.

Alex. C. Campbell  
NAVAL ARCHITECT

Electrical Engineers.

Date Oct. 30<sup>th</sup> 1942

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 73'0"

Minimum distance between electric generators or motors and steering compass 65'0"

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères 10'0" feet from standard compass 7'0" feet from steering compass.

A cable carrying 3 Ampères 12'0" feet from standard compass 8'0" feet from steering compass.

A cable carrying 1 Ampères 4'0" feet from standard compass 4'0" 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 1° W degrees on N.E. course in the case of the

standard compass, and 2° W degrees on S.W. course in the case of the steering compass.

DAVIE SHIPBUILDING & REPAIRING CO. LTD.

Builder's Signature.

Date Oct 30<sup>th</sup> 1942

Alex. C. Campbell  
NAVAL ARCHITECT

Is this installation a duplicate of a previous case Yes If so, state name of vessel S.S. "FORT TADOUSSAC"  
S.S. "PRINCE ALBERT PARK"

Plans. Are approved plans forwarded herewith - If not, state date of approval 21-8-41

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

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The electrical equipment of this vessel has been fitted on board under Special Survey  
and in accordance with the approved plans and tested under full working conditions and  
found satisfactory.

The materials and workmanship are good and sound.

Noted  
L.S.  
11/1/43

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... 125<sup>00</sup> : :  
When applied for, Nov. 16. 1942  
Travelling Expenses (if any) £ : :  
When received, .....19.....

D. Salkett  
Surveyor to Lloyd's Register of Shipping.

TUE. 12 JAN 1943

Committee's Minute 26

Assigned See M.H. Rpt. 5751

5m. 439.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)