

Rpt. 13.

No. 5781

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

192 FEB 1943

Date of writing Report... 22nd, Dec. 1942 When handed in at Local Office... 19... Port of... QUEBEC, P.Q.

No. in Survey held at LAUZON, P.Q. Date, First Survey 23rd, June Last Survey 15th, Dec 1942 Reg. Book. (Number of Visits... 25...)

on the Single Screw Steamer "FORT ST. FRANCOIS" Tons { Gross 7124.84 Net 4242.99

Built at Lauzon, P.Q. By whom built Davie Shipbuilding & Repairing Co. Ltd. Yard No. 540 When built 1942

Owners Ministry of War Transport Port belonging to

Electrical Installation fitted by Davie Shipbuilding & Repairing Co. Ltd. Contract No. 540 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 1/2" 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 A.M.P. 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 Q.B. DPDT quick-break switches.

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

ammeters 2 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

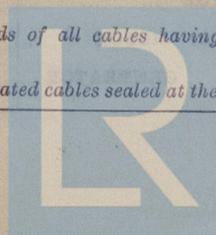
protection devices connected on the pole opposite to the equaliser connection, have they been tested under working conditions, and at what current

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.



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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 floor plates to switch board in conduit.

Are all lead sheaths, armoring 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 effectually 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 & 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.	Rev. 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 Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	15		19/.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 Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
1 sect. board For'd 4 way	1	19/.083	70	121	280	RCDB	Conduit
1 " " Aft 4 way	1	7/.097	59	76	280	"	"
Frig. 2 H.P. motor W/T	1	7/.038	14	26	240	"	"
Distribution Boxes							
1 - 6 way Navg. & 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 Amid ship Cargo Lights	1	7/.077	9	57	10	"	"
1 - 4 way Aft Cargo Lights	1	7/.077	16	57	190	"	"
1 - 8 way Eng. & B.R. Lights	1	7/.077	13	57	50	"	"
1 - 2 way Eng. Room Fan	-1		6				

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
WIRELESS	1	7/.097	-	76	80	RCDB	
NAVIGATION LIGHTS	1	7/.024	4	13	50	"	
LIGHTING AND HEATING	1	7/.024	4	13	1500	"	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.	
Frig. motor	1	2	1 7/.038	14	26	280	RCDB	
Motor Generators for Degaussing	2	15	each 1 19/.1320	115	142	30	RCDB	Part Conduit

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*

Electrical Engineers.

Date *Dec. 23<sup>rd</sup> 42*

NAVAL ARCHITECT

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 ..... feet from standard compass *4' - 0"* feet from steering compass. *above*

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 *S.E.* course in the case of the

standard compass, and *4° W.* degrees on *S.E.* course in the case of the steering compass.

DAVIE SHIPBUILDING & REPAIRING CO. LTD.

Builder's Signature.

Date *Dec. 23<sup>rd</sup> 42*

*Alex. C. Campbell*

NAVAL ARCHITECT

S.S. "FORT TADOUSSAC"

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

Plans. Are approved plans forwarded herewith *4 -* If not, state date of approval.

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.H.  
16/2/43*

Total Capacity of Generators *30* Kilowatts.

The amount of Fee ... *\$125<sup>00</sup>* : When applied for, *Jan. 16. 1943*

Travelling Expenses (if any) *Chgd. with Huel Rpt.* : When received, .....19.....

*D. Hallett*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE 23 FEB 1943*

Assigned *See Mill. No. 5781*

5m. 4. 36. — Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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