

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

30 SEP 1942

Received at London Office

Date of writing Report July 17 1942 When handed in at Local Office 19 Port of QUEBEC, P. Q.

No. in Survey held at Lauzon, P. Q. Date, First Survey 5th Jan. Last Survey 29th June 1942
Reg. Book. (Number of Visits 30)

on the Single Screw Steamer "PRINCE ALBERT PARK" Tons {Gross 7133.47
Net 4254.80

Built at Lauzon, P. Q. By whom built Davie Shipbldg. & Rpg. Co. Yard No. 534 When built 1942.

Owners Canadian Government Port belonging to Montreal

Electrical Installation fitted by Davie Shipbuilding & Repairing Co. Ltd. Contract No. 534 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 & 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 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

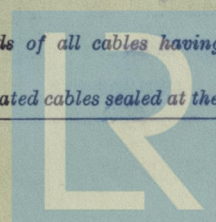
protection devices connected on the pole opposite to the equaliser connection -, have they been tested under working conditions, and at what current

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.



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 ampère 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.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	<u>2</u>	<u>15 each</u>	<u>110</u>	<u>136</u>	<u>575</u>	<u>Vertical steam eng.</u>	-	-
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 ...	<u>15</u>		<u>1320</u>	<u>136</u>	<u>142</u>	<u>30</u>	<u>RCDB</u>	<u>Conduit.</u>
" " 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 4way	1	19/083	70	121 ✓	280	RCDB	Conduit
1 " " Aft 4way	1	7/097	59	76 ✓	280	" "	"
Refrigerator 2 H.P. motor	1	7/038	14	26 ✓	240	" "	"
W/T	1	7/097		76 ✓	120	RCEC	Partly in conduit
Distribution Boxes							
1-6way Nav. & Bridge lights	1	7/077	25	57 ✓	30	RCDB	Conduit
1-6way Bridge house lights	1	7/077	18	57 ✓	10	" "	"
1-6way For'd cargo lights	1	7/077	14	57 ✓	210	" "	"
1-8way eng. house lights	1	7/077	23	57 ✓	10	" "	"
1-8way Crews Accom.	1	7/077	10	57 ✓	360	" "	"
1-4way amidship cargo lights	1	7/077	9	57 ✓	10	" "	"
1-4way aft cargo lights	1	7/077	16	57 ✓	190	" "	"
1-8way eng. & Boiler room lights	1	7/077	13	57 ✓	50	" "	"

LIGHTING AND HEATING, ETC., CABLES.

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

MOTOR CABLES.

[illegible]

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 COMPANY, Limited

per Alex. C. Campbell & Co.

Electrical Engineers.

Date 15-8-48

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 above 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 2°W degrees on S.E. course in the case of the standard compass, and 1½°E degrees on N.W. course in the case of the steering compass.

DAVIE SHIPBUILDING & REPAIRING COMPANY, Limited

Builder's Signature.

Date 15-8-48

per Alex. C. Campbell & Co.

Is this installation a duplicate of a previous case Yes If so, state name of vessel "Fort Tadoussac"

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.F.
2/10/42.

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... £ 125.00 When applied for, Aug 16. 42

Travelling Expenses (if any) £ ✓ When received, 19.00

D. Falkitt

Surveyor to Lloyd's Register of Shipping.

FRI 9 OCT 1942

Committee's Minute

Assigned See Mr. J.E. 5664