

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 28th. Dec. 1943 When handed in at Local Office Dec. 29 1943 Port of Quebec P.Q.
 No. in Survey held at Lauzon P.Q. Date, First Survey 27th. Aug. /43 Last Survey 23rd. Dec. 1943
 Reg. Book. (Number of Visits 19)
 on the Single Screw Steamer "FORT BRUNSWICK" Tons { Gross 7140.89
 Net 4223.38
 Built at Lauzon P.Q. By whom built Davie, Shipbuilding & Repairing Co. Ltd. Yard No. 549 When built 1943
 Owners Park Steamship Co. Ltd. Port belonging to -
 Electric Light Installation fitted by Davie Shipbuilding & Repairing Co. Ltd. Contract No. 549 When fitted 1943
 Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution 2 Wire D.C.
 Pressure of supply for Lighting 110 volts, Heating - volts, Power 0 volts.
 Direct or Alternating Current, Lighting Direct Current Power -
 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. -, if not compound wound state distance between each generator -
 Where more than one generator is fitted are they arranged to run in parallel No, 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 Both fitted on starboard side in Engine Room, 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 -
 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 Stard. side in Engine Room
 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, Ebony Asbestos, 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 -, 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 one 200 Amp. quick break double pole single throw switch. Two 60 Amp. one 30 Amp. fused quick break double pole double throw switches each board, Ford. Board one 200 Amp., Aft. Board one 100 Amp. quick break double pole double throw switches.
 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 Yes Instruments on main switchboard 4 ammeters 2 voltmeters 2 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 -
 Earth lamps - Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes are the fusible cutouts of an approved type Yes have the reversed -

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 volts** **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 **R.C.D.B. in conduit**
Support and Protection of Cables, state how the cables are supported and protected **Wiring enclosed in steel conduit throughout**
Vessel and secured by metal clips spaced in accordance with the Rules. Generator cables run
under floor plates to switchboard in conduit.
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 VIII **Yes**
Refrigerated Chambers, are the cables and fittings in accordance with the special requirements **No lights fitted.**
Joints in Cables, state if any, and how made, insulated, and protected **At dynamo lugs, soldered and taped.**
Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands
Tubes&Glands **Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the**
holes efficiently bushed **Yes** state the material of which the bushes are made **Lead**
Earthing Connections, state what earthing connections are fitted and their respective sectional areas

, are their connections made as per Rule
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 **None fitted**

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, on Navigating Bridge**
has each navigation lamp an automatic indicator as per Rule **Yes** **Secondary Batteries, are they constructed and fitted as per Rule** **Yes**
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 **Batteries only**
used for Alarm Bells, Echo sounder and Wireless.
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected **No**

, 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 -
Arc 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 **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	595	Vertical Steam Engine	-	-		
AUXILIARY ...										
EMERGENCY ...										
ROTARY TRANSFORMER	2	12.7 "	110	115	1500	Motor driven				
	2	10 "	30	333	1500					
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.	Circuit.	Rule.				
MAIN GENERATOR ...	1	.132	19	.094	136	142	30	R.C.D.B.	Conduit	
EQUALISER CONNECTIONS ...										
AUXILIARY GENERATOR ...										
EMERGENCY GENERATOR ...										
ROTARY TRANSFORMER MOTOR	1	.132	19	.094	115	142	30	R.C.D.B.	Conduit Degaussing	
GENERATOR	1	.391	37	.116	250	280	30	R.C.D.B.	" "	
ENGINE ROOM ...	1	.033	7	.077	13	57	50	R.C.D.B.	Conduit	
BOILER ROOM ...										
AUXILIARY SWITCHBOARDS ...										
1 Sect.Board-4way	1	.104	19	.083	70	121	280	R.C.D.B.	Conduit	
1 " "Aft.4way	1	.052	7	.097	59	76	280	"	"	
1 Gyro Compass	1	.008	7	.0385	6.3	26.4	40	L.C.		
ACCOMMODATION Dist.Box										
1-6way Bridgehouse	1	.033	7	.077	18	57	160	R.C.D.B.	Conduit	
1-8 " Engineers	1	.033	7	.077	23	57	70	"	"	
1-8 " Crew	1	.033	7	.077	10	57	360	"	"	
WIRELESS	1	.052	7	.097		76	120	R.C.L.C.	Partly in conduit	
SEARCHLIGHT										
MASTHEAD LIGHT	1	.003	7	.024	.5	13	400	R.C.D.B.	" " "	
SIDE LIGHTS ... (each)	1	.003	7	.024	.5	13	60	R.C.L.C.	Run on Trays	
COMPASS LIGHTS	1	.003	7	.024	.25	13	20	"	" " "	
POOP LIGHTS										
CARGO LIGHTS Ford.	1	.033	7	.077	14	57	210	R.C.D.B.	Conduit	
XXXXXXXXXXXX Midship	1	.033	7	.077	14	57	100	"	"	
XXXXXXXXXXXX Aft.	1	.033	7	.077	14	57	190	"	"	
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 ...										
OIL FUEL TRANSFER PUMP...										
WINDLASS ...										
WINCHES, FORWARD ...										
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR...										
(b) MAIN MOTOR ...										
WORKSHOP MOTOR ...										
VENTILATING FANS E.R.	1	1	.003	7	.024	6	13	12	R.C.D.B.	Conduit
Frig.Motor 2HP with its circu- lating pump.	1	1	.008	7	.038	14	26	240	"	"

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.

For David S. & R. Co. Ltd

D. Craig

Electrical Engineers.

Date 30th Dec '43

COMPASSES.

Distance between electric generators or motors and standard compass

73'-0"

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 feet from standard compass 7 feet from steering compass.

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

A cable carrying 1 Ampères 4 feet from standard compass 4 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° degrees on S.W. course in the case of the standard

compass, and 1° W degrees on N.E. course in the case of the steering compass.

For David S. & R. Co. Ltd

D. Craig

Builder's Signature.

Date 30th Dec 1943

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

S.S. "FORT TADOUSSAC" and

S.S. "PRINCE ALBERT PARK" etc.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The ELECTRICAL equipment of this Vessel has been fitted on board under special survey and in accordance with approved plans, tested under full working conditions and found satisfactory. The materials and workmanship are good and sound.

Notes
Thus

5.4.44

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... \$ 125.00 : When applied for, Jan. 27, 1944

Travelling Expenses (if any) Included When received, 19

Committee's Minute TUES. 16 MAY 1944

Assigned no action

D. Gaskett

Surveyor to Lloyd's Register of Shipping.

TUES. 19 SEP 1944

See minute on 16 Rpt.

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