

Rpt. 13.

No. 124547

## REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

9 OCT 1946

Received at London Office

Date of writing Report 18.4 Sept 1946 When handed in at Local Office 19. Port of Liverpool

No. in Survey held at Liverpool & Birkenhead Date, First Survey 25/4/46 Last Survey 17/9/1946  
Reg. Book. (Number of Visits 8)76204 on the s.s. 'JOHN HOLT' Tons { Gross 3818  
Net

Built at Birkenhead By whom built Cammell Laird &amp; Co Ltd Yard No. 1171 When built 1946

Owners John Holt &amp; Co. Port belonging to Liverpool

Electrical Installation fitted by Cammell Laird &amp; Co Ltd Contract No. 1171 When fitted 1946

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

Have plans been submitted and approved Yes System of Distribution Vars Lams Voltage of supply for Lighting 220

Heating 220 Power 220 Direct or Alternating Current, Lighting DC Power DC If Alternating Current state frequency Prime Movers,

has the governing been tested and found efficient when the whole 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 In Engine Room on Generator flat

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 In Engine Room adjacent to generator

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 Slate, 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 Yes 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 Yes, 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 Double pole switch

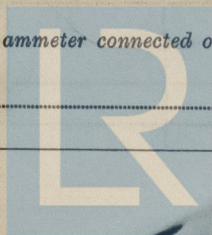
fuses

and for each outgoing circuit Double pole switch and fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes 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

Lloyd's Register  
Foundation

004918-004926 0111 1/2



EMERGENCY ...							
ROTARY TRANSFORMER							

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	17½	220	79.5	450.	Steam Engine.		
EMERGENCY ...								
ROTARY TRANSFORMER								

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.	Rels.			
MAIN GENERATORS ... (2) ...	17 1/2	1	14/064	79.5	135	60	V.C.	L.C.B.
" " EQUALISER ...								
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
GENERATOR ...								

AUX. SWITCHBOARDS AND SECTION BOARDS ...				Synthetic Rubber				
AFT LIGHTING. S.B.	S.1	1	7/064	23.8	46	100	R.N.N.	A.R.B.
" POWER S.B.	S.2.	1	7/064	39.7	46	100	"	"
FORW. POWER S.B.	S.3	1	7/064	24	46	110	"	"
" LIGHTING S.B.	S.4	1	19/064	69.9	135	210	I.C	L.C.B
ENG. ROOM. S.B.	S.5.	1	7/064	28.6	75	40	"	"
SHORE CONNECTION BOX.		1	19/064	80	135	110	"	"

WIRELESS	MAIN	ALTERNATIVE	D.B.1	1	7/064	20	46	290	R.N.N.	H.R.B.
NAVIGATION LIGHTS				1	7/064	20	10	290	"	"
LIGHTING AND HEATING	BEARGE LIGHTING	D.B.2		1	7/044	10	31	90	"	"
CAPTAIN'S ACC. LIGHTING		D.B.2		1	7/044	22	135	240	I.C.	L.C.B.
FORWARD CARGO LIGHTING		D.B.12		1	7/044	19	31	120	R.N.N.	H.R.B.
AFT	"	D.B.13		1	7/044	13	31	100	V.I.R.	L.C.B.
ENG ROOM LIGHTING	PORT.	D.B.14		1	7/044	13	31	40	"	"
"	"	D.B.15		1	7/044	13	31	40	"	"
"	STAR.	D.B.15		1	7/044	13	31	40	"	"
COOK'S ACC. LIGHTING		D.B.9		1	7/029	8	15	80	"	"
AFT. ACC. LIGHTING		D.B.11		1	7/029	9.8	15	200	"	"

[illegible]



and where are the controlling switches fitted \_\_\_\_\_, are all fittings suitably ventilated Yes,  
are all fittings and accessories constructed and installed as per Rule Yes. Searchlight Lamps, No. of \_\_\_\_\_, whether fixed or portable \_\_\_\_\_,  
\_\_\_\_\_, are their fittings as per Rule —. Heating and Cooking, is the general construction as per Rule Yes,  
are the frames effectually earthed Yes, are heaters in the accommodation of the convection type Yes. 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 \_\_\_\_\_  
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 \_\_\_\_\_ 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 \_\_\_\_\_ If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof  
type \_\_\_\_\_ 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 megger tested and found satisfactory Yes

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	17½	220	79.5	450	Steam Engine.		
EMERGENCY ...								
ROTARY TRANSFORMER								

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 GENERATORS ... (2) ...	17 1/2	1	14/064	79.5	135	60	V.C.	L.C.B.
" " EQUALISER ...								
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR ...								

AUX. SWITCHBOARDS AND SECTION BOARDS ...				Synthetic Rubber				
AFT LIGHTING. S.B.	S.1	1	7/064	23.8	46	100	R.N.	A.R.B.
" POWER S.B.	S.2	1	7/064	39.7	46	100	"	"
FORN? POWER S.B.	S.3	1	7/064	24	46	110	"	"
" LIGHTING S.B.	S.4	1	19/064	69.9	135	210	Y.C	L.C.B
ENG. ROOM. S.B.	S.5	1	7/064	28.6	75	40	"	"
SHORE CONNECTION BOX.		1	19/064	80	135	110	"	"

WIRELESS	...	1	7/064	20	46	290	R.N.	A.R.A.
NAVIGATION LIGHTS	MAIN ALTERNATIVE D.B.1	1	7/036	1	10	290	"	"
			7/036			20		
LIGHTING AND HEATING	BRIDGE LIGHTING D.B.2	1	7/044	10	31	80	"	"
	CAPTAIN'S ACC. LIGHTING D.B.3	1	7/036	7	10	40	"	"
	PASSENGERS' & ENGINEER'S ACC. Ltg. D.B.4	1	7/044	9	31	24	"	"
	PAINTRY & STORES LIGHTING D.B.5	1	7/029	6	15	20	"	"
	SALOON LIGHTING D.B.6	1	7/044	9	31	20	"	"
	STEWARDS' ACC. LIGHTING D.B.7	1	7/029	6	15	40	"	"
	FORECASTLE LIGHTING D.B.8	1	7/029	10	15	200	"	"
	MESS ROOM LIGHTING D.B.9	1	7/029	8	15	80	"	"
	COOKS' ACC. LIGHTING D.B.10	1	7/029	6	15	40	"	"
	AFT. ACC. LIGHTING D.B.11	1	7/029	9.8	15	200	"	"

[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.

*J. Williamson*

27 SEP 1946

Electrical Engineers.

Date

#### COMPASSES.

Minimum distance between electric generators ~~or motors~~ and standard compass 136 ft

Minimum distance between electric generators ~~or motors~~ and steering compass 128 ft

The nearest cables to the compasses are as follows:—

A cable carrying 10 Ampères 9 feet from standard compass 7 feet from steering compass.

A cable carrying 0.1 Ampères 10 feet from standard compass 8 feet from steering compass.

A cable carrying 0.1 Ampères 10 feet from standard compass 10 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 1/2 degrees on any course in the case of the standard compass, and 1/2 degrees on any course in the case of the steering compass.

FOR AND ON BEHALF OF  
CAMELLA LAIRD & CO. LIMITED

Builder's Signature

Date 28 SEP 1946

DIRECTOR

Is this installation a duplicate of a previous case No If so, state name of vessel

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

Equipment of this vessel has been installed under special survey in accordance with the Rules and approved plans. The installation has been tested under full working conditions and found satisfactory. The materials and workmanship are good.

Noted H.M. 23.10.46

Total Capacity of Generators 35 Kilowatts.

The amount of Fee ... £ 23 : 15 : 0

When applied for,  
30/9/46

Travelling Expenses (if any) £

When received.

19

*H. Hoffman*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Minute on Liverpool S.E. Machinery Report.



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