

Rpt. 13.

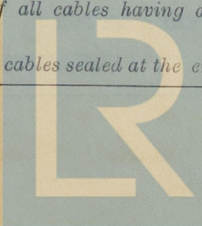
No. 66447

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

24 DEC 1942

Date of writing Report 28th Nov. 1942 When handed in at Local Office 21.12.1942 Port of GLASGOWNo. in Survey held at GLASGOW Date, First Survey 14th Aug. Last Survey 24th Dec. 1942
Reg. Book. (Number of Visits 24)86296 on the EMPIRE GERAINT Tons Gross.....
Net.....Built at GLASGOW By whom built C. CONNELL & CO. LTD Yard No. 439 When built 1942Owners MINISTRY OF WAR TRANSPORT Port belonging to GLASGOWElectrical Installation fitted by H. T. ROBERTSON & CO. GLASGOW Contract No. 439 When fitted 1942Is vessel fitted for carrying Petroleum in bulk — Is vessel equipped with D.F. Yes E.S.D. WIRING ONLY Gy.C. — Sub.Sig. —Have plans been submitted and approved Yes System of Distribution Two wire Voltage of supply for Lighting 110Heating — Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. 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 atrip 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 theyarranged to run in parallel No, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive poleNegative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing — Have certificates oftest for machines under 100 kw. been supplied Yes and the results found as per rule Yes Are the lubricating arrangements and the constructionof the generators as per rule Yes Position of Generators In engine room—, is the ventilation in way of generators satisfactory Yes are they clear of inflammable material Yes, if situatednear unprotected combustible material state distance from same horizontally — and vertically —, are the generators protected from mechanicalinjury and damage from water, steam and oil Yes, are the bedplates and frames earthed Yes and the prime movers and generators in metalliccontact Yes Switchboards, where are main switchboards placed In engine room near generators—are they in accessible positions, free from inflammable gases and acid fumes Yes, are they protected from mechanical injury and damage from water, steamand oil Yes, if situated near unprotected combustible material state distance from same horizontally — and vertically —, what insulationmaterial is used for the panels Linoleum, if of synthetic insulating material is it an Approved Type Yes, if ofsemi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule — Is the frame effectually earthed YesIs the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board Yes, individual fusesto 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 —300 AMP. Double pole knife pattern switches with fuses—and for each outgoing circuit 50 AMP & 100 AMP. Single pole knife pattern 3 way selector switches withfuses in each pole—Are compartments containing switchboards composed of fire-resisting material or lined as per Rule — Instruments on main switchboard 3ammeters 3 voltmeters — synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to theequaliser connection — Earth Testing, state means provided Earth lampsSwitches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Yes, are all fuses labelled asper Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested —, are the reversed currentprotection devices connected on the pole opposite to the equaliser connection —, have they been tested under working conditions, and at what currentdid they operate — Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YesCables, 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 0.04square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends YesPOWER 4.25 VOLTS.
LIGHTING 3.8 VOLTS.Lloyd's Register
Foundation

003038-003045-0029

PARTICULARS OF GENERATING PLANT.								
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	3	33	110	300		STEAM ENGINE		
EMERGENCY ...								
ROTARY TRANSFORMER								

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 ...	3 ✓	33 ✓	110 ✓	300 ✓		STEAM ENGINE		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load 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 GENERATORS.	33	1	37/103	300	385	60	V.C.	L.C.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

[illegible]

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	R.H.P.							
CARGO FAN N ^o 2 HOLD PORT	1	8 1/4	1	19/064	70	83	420	V.I.R.		IN PIPE
CARGO FAN N ^o 2 HOLD STR	1	8 1/4	1	19/064	70	83	390	V.I.R.		IN PIPE
CARGO FAN N ^o 3 HOLD PORT	1	8 1/4	1	19/064	70	83	416	V.I.R.		IN PIPE
CARGO FAN N ^o 3 HOLD STR	1	8 1/4	1	19/064	70	83	384	V.I.R.		IN PIPE
CARGO FAN N ^o 5 HOLD PORT	1	8 1/4	1	19/064	70	83	114	V.I.R.		IN PIPE
CARGO FAN N ^o 5 HOLD STR	1	8 1/4	1	19/064	70	83	90	V.I.R.		IN PIPE
CIRCULATING PUMP	1	10	1	19/064	80	83	100	V.I.R.		IN PIPE
DOMESTIC REFRIGERATOR	1	2 1/2	1	7/064	22	31	335	V.I.R.		IN PIPE

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.

Electrical Engineers.

Date 30 Nov 42

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... 45 feet

Minimum distance between electric generators or motors and steering compass..... 33 feet

The nearest cables to the compasses are as follows:—

A cable carrying '18 Amperes *led into* foot from standard compass *led into* foot from steering compass.

A cable carrying 5 Amperes 6 feet from standard compass 8 feet from steering compass.

A cable carrying Amperes feet from standard compass feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power

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 nil degrees on any course in the case of the standard compass, and nil degrees on any course in the case of the steering compass.

Builder's Signature. Date. 4th Dec 1912

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

Plans. Are approved plans forwarded herewith..... If not, state date of approval..... 17th July 1942

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, tested under working conditions and found satisfactory. All the requirements of the approved plans and M.O.W.T. Specification have been carried out. The materials & workmanship are good.

Noted

Handwritten signature

31/12/42

Total Capacity of Generators.....99.....Kilowatts.

The amount of Fee ... £ 52 : 8 : (When applied for, 22 DEC 1942)

M.O.W.T. Spec. £ 8: 2
 Travelling Expenses (if any) £ : : When received.

Travelling Expenses (if any)	£	∴	:	When received
			19..

Committee's Minute GLASGOW 22 DEC 1942

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

Em 120—Transfer (MADE AND PRINTED IN ENGLAND.)

The Commencement are requested not to write on or below the space for Committee's Minute.)

J. M. Gardiner
Surveyor to Lloyd's Reg

Surveyor to Lloyd's Register of Shipping.

Lloyd's Register
Foundation