

Rpt. 13.

9825  
No. 9825

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

9 JAN 1952

Date of writing Report 18<sup>th</sup> December 1951 When handed in at Local Office 7.1.1952 Port of GLASGOW

No. in Survey held at DUNDEE Date, First Survey 10<sup>th</sup> May Last Survey 6<sup>th</sup> December 1951  
Reg. Book. (No. of Visits 21)

35293 on the R.F.A. 'EDDYBEACH' Tons { Gross 2157  
Net 905

Built at DUNDEE By whom built CALEDON S.B. & E. CO. LTD Yard No. 474 When built 1951

Owners THE ADMIRALTY Port belonging to LONDON

Installation fitted by TELFORD GRIER MASKAY & CO. LTD When fitted 1951

Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. Sub.Sig. Radar YES

Plans, have they been submitted and approved Yes System of Distribution Joo wire Voltage of Lighting 110

Heating 220 Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted with a trip switch

Generators, are they compound wound Yes, and level compounded under working conditions Yes

if not compound wound state distance between generators and from switchboard Are the generators arranged to run in parallel only

60kw. sets 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 Yes Have certificates of test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators 60kw. sets (220V) - On flat Port and Starboard sides of engines room 15kw. sets (110V) - On F.D. fan flat.

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil Yes

Switchboards, where are main switchboards placed 220 Volt and 110 Volt Main boards at Forward bulkhead of engines room adjacent to 220 Volt generators.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil Yes, what insulation is used for the panels Sindamys

if of synthetic insulating material is it an Approved Type Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Yes

Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear for each generator and arrangement of equaliser switches 60kw. sets - 400 amp. triple pole circuitbreaker fitted with overload and reverse current trips. 15kw. sets - Double pole knife pattern changeover switch, with fuses

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double pole knife pattern switches with fuses

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

ammeters Four voltmeters synchronising devices. For compound machines in parallel are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection Yes 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

make of fuses English Electric Co., are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 150% Full load, and at what current do the reversed current protective devices operate 10%-15% Full load.

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

Cables, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type Yes

state maximum fall of pressure between bus bars and any point under maximum load 2.7 Volts, are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets Yes

Are all paper insulated and varnished cambric insulated cables sealed at the ends Yes

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 any cables laid under machines or floorplates No, if so, are they adequately protected Yes

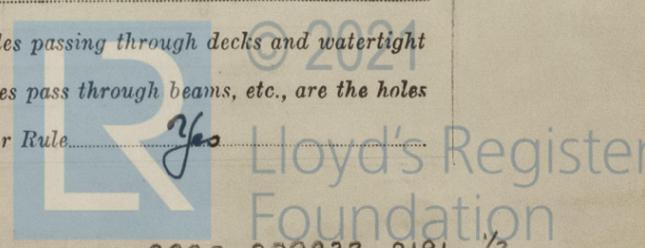
Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit Yes

or of the "HR" type Yes State how the cables are supported or protected Mains - L.B.A.B. cables clipped to steel plate Machinery Space L.C. cables clipped to tray and steelwork Accommodation L.C. cables clipped to woodwork

Are all lead sheaths, armouring and conduits effectually bonded and earthed 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

Refrigerated chambers, are the cables and fittings as per Rule Yes



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... *Yes*... Emergency Supply, state position *Admiralty type Automatic Emergency lanterns.*

Navigation Lamps, are they separately wired... *Yes*... controlled by separate double pole switches 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*... Is an alternative supply provided... *Yes*

Secondary Batteries, are they constructed and fitted as per Rule... *Yes*... are they adequately ventilated... *Yes*... state battery capacity in ampere hours... *Yes*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... *Yes*

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present... *Yes*

if so, how are they protected... *Weatherproof fittings. Admiralty design flameproof fittings.*

and where are the controlling switches fitted... *In accommodation space*... Are all fittings suitably ventilated... *Yes*

10" Signalling Projector... *Searchlight Lamps*, No. of... *ONE*... whether fixed or portable... *Portable*... are they of the carbon arc or of the filament type... *Filament*

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 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil... *Yes*

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment... *Yes*... Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing... *Yes*

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule... *Yes*

Control Gear and Resistances, are they constructed and fitted as per Rule... *Yes*... Lightning Conductors, where required are they fitted as per Rule... *Yes*... 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... *Yes*... are all fuses of an Approved Cartridge Type... *Yes*... make of fuse... *English Electric C°*... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships... *Yes*... Are the cables lead covered as per Rule... *Yes*

E.S.D., if fitted state maker... *Masconi*... location of transmitter... *Frame space 28/29th*... and receiver... *Frame space 42/43rd*

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and 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	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	Three	General Electric C°	60	225	267	500	Steam	Sison
	Two	General Electric C°	15	115	130	1300	Electric motor	General Electric C°
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	60	2	19/064	267	286	36	V.C.	L.C.
" " EQUALISER ...		1	19/064	-	143	18	V.C.	L.C.
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR		1	19/052	90	110	100	V.C.	L.C.
" " GENERATOR...		1	19/064	130	143	100	V.C.	L.C.

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

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).	INSULATION.	PROTECTIVE COVERING.
Lighting Section Forward.	1	19/064	544	143	180	V.C.	L.C.A.B.
Lighting Section Aft.	1	7/064	65	80	30	V.C.	L.C.
Engine room & Boiler room Vent fan Section	1	19/052	84	110	45	V.C.	L.C.
Boat winches Section Forward.	1	7/064	32	46	180	RUBBER	L.C.A.B.
Boat winches Section Aft.	1	7/064	37	46	75	RUBBER	L.C.
Fresh water and Sub. Oil pump section	1	7/064	443	80	84	V.C.	L.C.
elbow supply.	2	19/064	-	286	144	V.C.	L.C.

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Wireless	1	19/052	273	110	210	V.C.	L.C.A.B.
Navigation and Instruments D.B.	1	7/029	6	15	225	RUBBER	L.C.A.B.
Upper Bridge Deck Lighting D.B.	1	7/036	214	24	15	RUBBER	L.C.
Bridge Deck Lighting D.B.	1	7/036	19	24	30	RUBBER	L.C.
Upper Deck Lighting D.B.	1	7/036	14	24	30	RUBBER	L.C.
Poop Deck Lighting D.B.	1	7/064	34	46	15	RUBBER	L.C.
Aft Upper Deck Lighting D.B.	1	7/064	31	46	15	RUBBER	L.C.
Engine room and Boiler room Ltg. D.B.	1	7/064	376	46	15	RUBBER	L.C.
Floodlighting D.B.	1	7/064	245	46	180	RUBBER	L.C.A.B.
Cabin fan D.B.	1	7/029	8	15	75	RUBBER	L.C.
Radar	1	7/036	136	24	210	RUBBER	L.C.A.B.
Bridge Power Board	1	7/044	128	31	225	RUBBER	L.C.A.B.
Domestic Power Board.	1	7/064	238	46	180	RUBBER	L.C.A.B.
European Galley.	1	7/064	66	80	90	V.C.	L.C.
Native Galley	1	7/064	66	80	81	V.C.	L.C.
Hospital	1	7/064	475	80	75	V.C.	L.C.
Refrigerator	1	7/036	188	24	81	RUBBER	L.C.
Workshop.	1	7/044	25	31	30	RUBBER	L.C.
Projectors	1	3/036	114	10	225	RUBBER	L.C.A.B.
Aft Vent Fan D.B.	1	7/064	463	46	45	RUBBER	L.C.
Mid. Vent Fan D.B.	1	7/036	145	24	210	RUBBER	L.C.A.B.
Degaussing.	1	7/064	45	80	45	V.C.	L.C.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	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).	INSULATION.	PROTECTIVE COVERING.
Standby Lub. Oil Pump.	1	4.5	1	7/044	18	31	21	RUBBER	L.C.
Domestic Fresh Water Pumps.	2	3	1	7/029	12	15	21	RUBBER	L.C.
Baths	1	3	1	7/029	13	15	15	RUBBER	L.C.
Domestic Refrig. Compressor	1	2.5	1	7/036	10	15	15	RUBBER	L.C.
Periscope	1	1.5	1	3/036	2.8	10	30	RUBBER	L.C.
Boat Winches	2	6	1	7/044	247	31	30	RUBBER	L.C.
Engine room & Boiler room Vent Fans	2	4	1	7/036	17	24	60	RUBBER	L.C.
	4	2.9	1	7/029	12.5	15	75	RUBBER	L.C.
Accommodation Vent Fans	2	3	1	7/029	13	15	75	RUBBER	L.C.
	3	2.3	1	7/029	10.6	15	75	RUBBER	L.C.
	2	1.8	1	3/036	1.5	10	75	RUBBER	L.C.

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.

Edna Lewis Electrical Contractors. Date 20<sup>th</sup> Dec 51

COMPASSES.

FOR AND ON BEHALF OF  
Have the compasses been adjusted and checked by THE CALDON SHIPBUILDING & ENGINEERING CO. LTD. Yes

J. J. Cole DIRECTOR Builder's Signature. Date 24<sup>th</sup> December 1951

Have the foregoing descriptions and schedules been verified and found correct. Yes

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

Plans. Are approved plans forwarded herewith. No If not, state date of approval. 31<sup>st</sup> May, 1951

Certificates. Are certificates of test for motors engaged on essential sea 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 installation of this vessel has been fitted on board under Special Survey, tested under working conditions and found satisfactory. The quality of materials and workmanship is good.

Noted 22.1.52

Total Capacity of Generators..... 180 Kilowatts.

The amount of Fee ... 36 a/p. 69 : 0 ✓ When applied for, 24.12.1951

SPECIFICATION FEE ... £ 69 : 0 ✓ When received, 19

Travelling Expenses (if any) £ : ✓

J. M. Gardiner & S. B. Johnson  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... GLASGOW 8 JAN 1952

Assigned SEE ACCOMPANYING MACHINERY REPORT.

2m. 9. 40. - 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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