

'BIOGRAPHER'

Surveyor's Initials.

No. 74471

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

22 SEP 1949

Received at London Office

Date of writing Report 2<sup>ND</sup> SEPT. 19 49. When handed in at Local Office 17. 9. 19 49 Port of GLASGOW.No. in Survey held at PORT GLASGOW & GLASGOW. Date, First Survey 14<sup>TH</sup> JANUARY Last Survey 31<sup>ST</sup> AUGUST 19 49  
Reg. Book. (No. of Visits 15)Tons } Gross 6915  
Net 4123

91940 on the S.S. BIOGRAPHER

Built at PORT GLASGOW By whom built LITHGOWS. LTD Yard No. 1029 When built 1949

Owners CHARENTE S.S. CO LTD Port belonging to LIVERPOOL

Installation fitted by MESSRS CAMPBELL &amp; ISHERWOOD When fitted 1949

Is vessel equipped for carrying Petroleum in bulk NO Is vessel equipped with D.F. YES E.S.D. YES Gy.C. Sub.Sig. Radar

Plans, have they been submitted and approved YES System of Distribution TWO WIRE Voltage of Lighting 220

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 YES, 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 and the results found 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 and protected from mechanical injury and

damage from water, steam and oil YES Switchboards, where are main switchboards placed IN ENGINE ROOM NEAR

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 SINDANYO, 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 800 AMP T.P. CIRCUIT BREAKER FITTED WITH OVERLOAD.

REVERSE CURRENT AND PREFERENCE TRIPS.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit DOUBLE POLE CIRCUIT BREAKER OR D.P. KNIFE

PATTERN SWITCHES WITH FUSES.

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

ammeters THREE 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 ARTIC, are all fuses labelled YES. If circuit breakers are provided for the generators, at what

overload do they operate FULL LOAD, and at what current do the reversed current protective devices operate 10% - 15% F.L.

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

state maximum fall of pressure between bus bars and any point under maximum load 11.6 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 YES, if so, are they

adequately protected YES. Are cables in machinery spaces, galleys, laundries, etc., lead covered YES, run in conduit YES

or of the M.I.C.C. type YES. State how the cables are supported or protected MAINS - L.C. CABLE CLIPPED TO STEEL

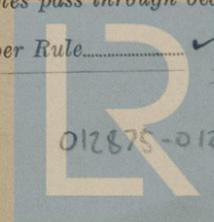
PLATE WITH COVER PLATE FITTED. MACHINERY SPACE - L.C.B. CABLES CLIPPED TO TRAY. ACCOMMODATION

- L.C. CABLE 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



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Lloyd's Register  
Foundation

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES Emergency Supply, state position YES

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 storerooms 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 NO if so, how are they protected YES

and where are the controlling switches fitted YES Are all fittings suitably ventilated YES

Searchlight Lamps, No. of YES, whether fixed or portable YES, are they of the carbon arc or of the filament type YES

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 YES 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 MARCONI location of transmitter AND RECEIVER R.S.P. 161-162 and receiver AND T.A.M.S. F.A.S.P. 86-37

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 ...	3	CAMPBELL & ISHERWOOD	150	220	682	600	DIESEL	BELLIS & MORCOM.
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 ...	150	2	37/103	682	770	150	V.C.	L.C.B.
" " EQUALISER ...		1	37/103	-	385	75	V.C.	L.C.B.
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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

DESCRIPTION.	No.	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.
FORWARD WINCH PANEL	2	37/083	574	592	656	V.C.	L.C.B.
PORT MIDSHIP WINCH PANEL	1	19/083	171	191	240	V.C.	L.C.B.
STARBOARD MIDSHIP WINCH PANEL	1	19/083	171	191	180	V.C.	L.C.B.
PORT AFT WINCH PANEL	1	19/083	182.4	191	424	V.C.	L.C.B.
STARBOARD AFT WINCH PANEL	1	19/083	182.4	191	360	V.C.	L.C.B.

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	7/044	20	42	200	V.C.	L.C.B.
NAVIGATION.	1	7/036	1	28	508	V.C.	L.C.B.
BRIDGE LIGHTING.	1	7/052	30	57	384	V.C.	L.C.B.
ENGINEERS ACCOMMODATION LIGHTING	1	7/052	26	57	168	V.C.	L.C.B.
AFT ACCOMMODATION LIGHTING.	1	7/044	14.6	42	478	V.C.	L.C.B.
ENGINE ROOM LIGHTING	1	7/052	15	57	50	V.C.	L.C.B.
CARGO LIGHTING	1	7/044	28	42	226	V.C.	L.C.B.
SWRZ CANAL PROJECTOR (Wiring Only)	1	7/044	18	42	680	V.C.	L.C.B.
VENT FAN D.B.	1	7/044	24	42	180	V.C.	L.C.B.
LAUNDRY D.B.	1	7/052	31.4	57	232	V.C.	L.C.B.
SALOON PANTRY POWER	1	7/044	22	42	120	V.C.	L.C.B.
PANTRY POWER.	1	7/064	42	75	228	V.C.	L.C.B.
BAKERS OVEN.	1	7/064	31.8	75	280	V.C.	L.C.B.
SMALL ENGINE ROOM FUXS.	1	19/064	82	135	90	V.C.	L.C.B.
SMALL ENGINE ROOM FUXS.	1	19/064	111	135	90	V.C.	L.C.B.
GYRO COMPASS	1	7/036	20	28	208	V.C.	L.C.B.
SHORE CONNECTION.	1	19/083	-	191	220	V.C.	L.C.B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	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.
WINDLASS	1	140	2	37/083	340	592	188	V.C. L.C.B.
WINCHES	15	30	1	19/064	114	135	120	V.C. L.C.B.
STEERING GEAR	2	20	1	19/044	81	117	542	V.C. L.C.B.
MAIN CIRCULATING PUMP	1	65	1	37/072	245	246	210	V.C. L.C.B.
BALLAST PUMP	1	31	1	19/064	117	185	190	V.C. L.C.B.
GENERAL SERVICE & BILGE PUMPS	2	17	1	7/064	66	75	218	V.C. L.C.B.
TURNING GEAR	1	16	1	7/064	63	75	60	V.C. L.C.B.
FORCED DRAUGHT FANS	2	16	1	7/064	64	75	234	V.C. L.C.B.
LUB. OIL PUMPS	2	11	1	7/044	43	42	204	V.C. L.C.B.
CONDENSATE PUMPS.	2	10	1	7/044	39	42	216	V.C. L.C.B.
BOILER OIL TRANSFER PUMP	1	10	1	7/044	40	42	162	V.C. L.C.B.
AIR COMPRESSOR	1	9 1/2	1	7/044	37	42	136	V.C. L.C.B.
S.W. CIRCULATING PUMP	2	7 1/2	1	7/044	30	42	180	V.C. L.C.B.
ENGINE ROOM VENT FANS.	2	4 3/4	1	7/036	19	28	100	V.C. L.C.B.
F.W. PUMP	1	4 1/2	1	7/036	17	28	100	V.C. L.C.B.
DOMESTIC REFRIGERATOR	1	3	1	7/036	13	28	120	V.C. L.C.B.
O.F. BURNING GEAR	2	2 1/2	1	7/029	11	15	150	RUBBER L.C.B.
AUXILIARY BOILER BLOWER	1	2	1	0845	10	15	160	M.I.C.C. -
D.O. TRANSFER PUMP	1	1 3/4	1	3/036	7.5	10	140	RUBBER L.C.B.
MONO PUMP	1	1 1/4	1	3/036	6	10	160	RUBBER L.C.B.
PURIFIERS	2	1/2	1	3/029	3	5	60	RUBBER L.C.B.

