

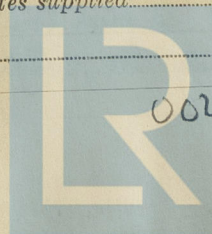
No. 19420

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 27-11-1952 When handed in at Local Office 28-11-1952 Port of West Hartlepool
 Date, First Survey 22.8.52 Last Survey 12.11.52
 (No. of Visits 10)
 Survey held at West Hartlepool
 Book. 594 on the S.S. "Eugenia" Tons { Gross 7404 Net 4488
 Built at West Hartlepool By whom built Wm Gray & Co Ltd Yard No. 1254 When built 1952
 Owners M. G. Livanos Port belonging to Monrovia
 Installation fitted by Wm Gray & Co Ltd When fitted 1952
 Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. — Radar Yes
 Plans, have they been submitted and approved Yes System of Distribution Two wire insulated Voltage of Lighting 110
 Heating 110 Power 110 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
 Are the generators arranged to run in parallel No Is the compound winding connected to the negative or positive pole Negative
 Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing — Have certificates of test for machines
 under 100 kw. been supplied and the results found as per Rule Yes Position of Generators Starboard side
inboard and outboard on starting platform level
 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 Fore and aft on
flat immediately above generators and facing port side
 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 Sindanga, 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 — 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 Double Pole Double Throw Quick Break
Knife Switch and Double Pole Fuses
 and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double Pole Double Throw Quick
Break Knife Switch and Double Pole Fuses
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 8
 ammeters 2 voltmeters — synchronising devices — For compound machines in parallel are the ammeters and reverse current
 protection devices connected on the pole opposite to the equaliser connection — Earth Testing, state means provided Earth lamp
 coupled to 'E' the switches & fuses. Preference Tripping, state if provided — and tested —
 Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes
 make of fuses "Artie", are all fuses labelled Yes If circuit breakers are provided for the generators, at what
 overload do they operate —, and at what current do the reverse current protective
 devices operate — 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 < 6.6 volts. 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 — State
 type of cables (if in conduit this should also be stated) in machinery spaces V.I.R. cable in conduit, galleys V.I.R. I.C.
 and laundries — State how the cables are supported or protected Generator main V.I.R. cables
in plumbers pipe. V.I.R. cable in conduit in Engine Room, tunnel, manhouse,
turner decks and forecath. Lead covered cables in accommodation chained to
wood grounds.
 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
 Have refrigeration fan motors been constructed under survey — and test certificates supplied —
 Are the motors accessible for maintenance at all times —



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

Navigation Lamps, are they separately wired. Yes. Are the switches and fuses controlled by separate double pole switches and fuses. Yes. Is an alternative supply provided. Yes. Is an automatic indicator fitted. Yes. Is a position accessible only to the officers on watch. Yes. state battery capacity.

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

ampere hours. Where required to do so does it comply with 1948 International Convention. Yes. Lighting, is fluorescent lighting fitted. Yes. If so, state nominal lamp voltage. Yes. and compartments where lamps are fitted. Yes.

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

Searchlights, 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.

Lightning Conductors, where required are they fitted as per Rule. Yes.

Ships carrying Oil having a Flash Point of 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 all cables lead covered as per Rule. Yes.

E.S.D., if fitted state maker. Submarine Sig. Co. location of transmitter and receiver. Frame 140/141 Port + Starboard.

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				TYPE.	PRIME MOVER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN	2	Sunduland Forge & Eng. Co. Ltd.	25	110	237	685	Steam	Sunduland Forge & Eng. Co. Ltd.
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	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	1	25	2	19/083	237	236	30	V.I.R.	Conduit
" " EQUALISER	1	25	2	19/083	237	236	30	V.I.R.	Conduit
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR									
" " GENERATOR									

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.									
Main switchboard to Navigation	D.B.1.	1	7/052	19.45	37	438	V.I.R.	L.b.	
Main switchboard to Saloon	S.B.1	1	19/044	52.01	53	348	V.I.R.	Conduit	
S.B.1. to Bridge Deck	D.B.2	1	7/036	18.37	24	60	V.I.R.	L.b.	
S.B.1 to Saloon Deckhouse	D.B.3	1	7/052	33.64	37	6	V.I.R.	L.b.	
Alternative supply to Navigation		1	3/029	1.82	5	48	V.I.R.	L.b.	
Main switchboard to Engine Room	S.B.2	1	19/044	49.74	53	135	V.I.R.	Conduit	
S.B.2 to Engine Room Deckhouse Pt.	D.B.4	1	7/036	21.69	24	78	V.I.R.	L.b.	
S.B.2 to Engine Room Deckhouse Sld.	D.B.5	1	7/036	16.35	24	6	V.I.R.	L.b.	
Main switchboard to Looz Aft.	S.B.3	1	19/044	49.7	53	435	V.I.R.	Conduit	
S.B.3 to Poop Deckhouse	D.B.6	1	7/029	13	15	60	V.I.R.	L.b.	
S.B.3 to Laundry Scket Outlet		1	7/029	15	15	51	V.I.R.	L.b.	
S.B.3 to Upper Deck Aft.	D.B.7	1	7/036	21.7	24	6	V.I.R.	L.b.	
Main switchboard to Mech. Ventilation	D.B.8	1	19/052	60.4	64	141	V.I.R.	Conduit	
Main switchboard to Cargo Lighting	S.B.4	1	7/064	42.22	46	141	V.I.R.	Conduit	

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
B.4 to Cargo Foremast	D.B.9	1	7/052	13.83	37	510	V.I.R. Conduit.
B.4 to Cargo Mainmast	D.B.10	1	7/036	13.83	24	219	V.I.R. Conduit.
Main switchboard to Eng. Room Power	S.B.5	1	19/083	92.11	118	30	V.I.R. Conduit.
B.5 to Engine Room Power	D.B.11	1	19/044	49.2	53	15	V.I.R. Conduit.
B.5 to Engine Room Lighting	D.B.12	1	7/064	42.91	46	30	V.I.R. Conduit.
Main switchboard to Whirlies		1	19/064	25	83	435	V.I.R. Conduit.
Main switchboard to Radar		1	19/064	45	83	468	V.I.R. Conduit.
Main switchboard to Brown's Gyro Comp.		1	7/036	6	24	420	V.I.R. Conduit.
Main switchboard to Refrigeration		1	19/064	42.41	83	390	V.I.R. Conduit.
Main switchboard to Sug. Canal Proj.		1	19/044	27.27	53	702	V.I.R. Conduit.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.	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.			
Supply Fan No. 1. Saloon Deckhouse		1	2	1	7/064	18	46	450	V.I.R.	Conduit.
Supply Fan No. 2. Engine Room		1	2	1	7/036	18	24	120	V.I.R.	L.b.
Supply Fan No. 3. Poop Deckhouse		1	2	1	7/064	18	46	429	V.I.R.	Conduit.
Gally Exhaust Unit No. 4. Jwd.		1	0.25	1	3/029	3.2	5	120	V.I.R.	L.b.
Gally Exhaust Unit No. 5. Aft.		1	0.25	1	7/029	3.2	15	480	V.I.R.	Conduit.
Laths.		1	2	1	7/036	18	24	54	V.I.R.	Conduit.
Drilling Machine.		1	0.75	1	3/036	8.5	10	54	V.I.R.	Conduit.
Grinder		1	0.75	1	3/036	8.5	10	45	V.I.R.	Conduit.
Sanitary Pump.		1	0.75	1	3/036	8.5	10	60	V.I.R.	Conduit.
Oil Purifier		1	0.5	1	3/036	5.7	10	72	V.I.R.	Conduit.
S.W. Pump. (Refig.)		1	0.75	1	7/036	8.55	24	430	V.I.R.	Conduit.
Refig. Compressor		2	4.0	1	19/064	35.0	83	390	V.I.R.	Conduit.
Gally S.W. Pump.		1	0.75	1	3/036	8.5	10	135	V.I.R.	L.b.
Gally Blowers.		2	0.25	1	3/029	3.2	5	120	V.I.R.	L.b.

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

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.

For William Gray & Co., Limited

Electrical Contractors.

Date 20. 11. 1952.

Director

COMPASSES.

Have the compasses been adjusted under working conditions.

For William Gray & Co., Limited

Builder's Signature.

Date 20. 11. 1952.

Director

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. Yes. If not, state date of approval.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. Yes.

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.) The electrical equipment on this vessel has been installed under special survey and the arrangements are in accordance with or equivalent to those shown on the approved plans and the Rules for Electrical Equipment.

The materials used are of good quality and the workmanship is good.

On completion the equipment was operated under working conditions and the insulation resistance of all circuits measured and found good.

This installation is in my opinion suitable for a classed vessel.

Special Notation :- D.F., E.S.D., Gyro C and Radar.

Total Capacity of Generators 50 Kilowatts.

The amount of Fee ... £ 42 : 10 :
Radiotelegraphy but £ 6 : 0 :
When applied for, 9-12-1952

Travelling Expenses (if any) £ : :

When received,

19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 6 JAN 1953

Assigned

See F.E. mch. rpt



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