

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report MAY/AUGUST 60 When handed in at Local Office 8th Aug. 19 60 Port of MarseillesNo. in Survey held at La Seyne s/Mer Date, First Survey 28.12.59 Last Survey 29.4.19 60  
Reg. Book. (No. of Visits 10)42646 on the "L A E S T A N C I A" Tons  $\left\{ \begin{array}{l} \text{Gross. } 9485,62 \\ \text{Net. } 5956,66 \end{array} \right.$ Built at La Seyne-sur-Mer By whom built Soc. des For. de la Méditerranée - La Seyne Yard No. 1340 When built 1960Owners Baries Markes Ltd Port belonging to LondonInstallation fitted by Soc. des For. de la Méditerranée La Seyne When fitted 1960Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy. Yes Sub. Sig. No Radar YesPlans, have they been submitted and approved Yes System of Distribution direct current 2 wire Voltage of Lighting 220Heating --- Power 220 D.C. or XX, Lighting DC 220 Power DC 220 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 225/230VAre the generators arranged to run in parallel Yes Is the compound winding connected to the negative or positive pole negativeHave machines 100 kw. and over 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 three generators installedon starboard side forward in engine room at lower floor levelIs 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 one engine room, starboard side platform, directly above the 3 diesel - 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 dead front type panel, 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 --- Is the construction as per Rule, including locking of screws and nuts yes Description of Main Switchgearfor each generator and arrangement of equaliser switches double poles, plus one equalizer pole circuit breaker rating 1250 A, with overload and reverse current trips (overload trips: instantaneous and delayed).and the switch and fuse gear (or circuit breakers) for each outgoing circuit double pole circuit breaker with overload trips (inst. and delay) for each outgoing circuit over 200 A / a rotary switch with fuse (approved type) for outgoing circuit below 200 AAre compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 8 ammeters 4 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 yes Earth Testing, state means provided two earth indicat. lamps, metal filament, Preference Tripping, state if provided yes, and tested yesSwitches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes make of fuses "Cehess" Marine, are all fuses labelled yes If circuit breakers are provided for the generators, at whatoverload do they operate Nos. 1, 2, 3 : 1350 A, and at what current do the reverse current protective-devices operate No. 1: 125 A, No. 2: 110 A, No. 3: 110 A Cables, are they insulated and protected as per Rule no (see letter 15.12.59)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 11,8 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends yes and asbestos siliconeAre 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 --- Statetype of cables (if in conduit this should also be stated) in machinery spaces  $\left\{ \begin{array}{l} \text{marine lead armoured} \\ \text{asbestos silicone} \end{array} \right.$ , galleys asbestos silicone and laundries marine lead armour State how the cables are supported or protectedcable clipped to steel trays in machinery spaces, clipped to hull structure in holds, protected in casing in accommodation spaces.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 holeseffectively bushed yes Refrigerated chambers, are the cables and fittings as per Rule yesHave refrigeration fan motors been constructed under survey --- and test certificates supplied ---Are the motors accessible for maintenance at all times ---

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes Emergency Supply, state position not required to be provided

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, fitted and adequately ventilated as per Rule yes (W.T. only), state battery capacity in ampere hours 2 batteries, 150AH (each) Where required to do so does it comply with 1948 International Convention yes

Lighting, is fluorescent lighting fitted no If so, state nominal lamp voltage --- and compartments where lamps are fitted ---

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 5, whether fixed or portable 3 fixed, are they of the carbon arc or of the filament type filament  
2 portables

Heating and Cooking, is the general construction as per Rule ---, are the frames effectually earthed ---, are heaters in the accommodation of the convection type --- 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 none > 100 BHP

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 not required

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 ---, are all fuses of an Approved Cartridge Type ---, make of fuse --- Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships --- Are all cables lead covered as per Rule ---

E.S.D., if fitted state maker Submarine Signal location of transmitter and receiver (fwd. engine room DB. frames 36/38 & Co. (London) as per approved plan EL-5/3 dated 8/5/5)

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. |            | MAKER.             |  |
| MAIN                         | I      | Brush Electrical    | 200                | 230    | 869      | 600            | three      |                    |  |
|                              | II     | Engeneering Coy Ltd | 200                | 230    | 869      | 600            | oil eng.   | Mirrless Pickerton |  |
|                              | III    | England             | 200                | 230    | 869      | 600            | 4SA 6cyl   | and Day Ltd        |  |
| EMERGENCY ROTARY TRANSFORMER |        |                     |                    |        |          |                | 8 1/2"x13" | England            |  |

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            | 3      | 200 | 3                         | 150 mm <sup>2</sup>  | 869                         | 3x392 | 8m                                      | asbestos silicone |                      |
| EQUALISER                 |        |     | 2                         | 95 mm <sup>2</sup>   |                             | 2x294 | 8m                                      | asbestos silicone |                      |
| EMERGENCY GENERATOR       |        |     |                           |  |                             |       |   |                   |                      |
| ROTARY TRANSFORMER: MOTOR |        |     |                           |  |                             |       |   |                   |                      |
| " GENERATOR               |        |     |                           |  |                             |       |   |                   |                      |

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

| DESCRIPTION.                       |   |                   |      |     |     |                           |  |  |
|------------------------------------|---|-------------------|------|-----|-----|---------------------------|--|--|
| Galley and Ventilation switchboard | I | 95mm <sup>2</sup> | 155  | 294 | 36m | asbestos silicone         |  |  |
| Fore load winches junction boxes   | I | 95 "              | 256  | 294 | 108 | " "                       |  |  |
| Middle " " "                       | I | 95 "              | 256  | 294 | 71  | " "                       |  |  |
| Starters ventilation holds 1-2-3   | I | 8                 | 18   | 64  | 32  | " "                       |  |  |
| Starters ventilation holds 4-5     | I | 5,5               | 12   | 21  | 31  | rubber-lead-steel braided |  |  |
| Mach. shop switchboard             | I | 8                 | 23,5 | 64  | 34  | asbestos silicone         |  |  |
| Donkey boiler switchboard          | I | 8                 | 60   | 64  | 37  | " "                       |  |  |
| Aft load winches junction boxes    | I | 60                | 208  | 223 | 28  | " "                       |  |  |
| Hydrophores switchboard            | I | 8                 | 50   | 64  | 12  | " "                       |  |  |
| Provision refrig. switchboard      | I | 88                | 16   | 64  | 31  | " "                       |  |  |

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

| 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. |   |                    |                      |
| Lighting:                  |            |                           |  |                             |       |   |                    |                      |
| Lighting board             | Nos. 1 & 2 | I                         | 22   | 89,3                        | I2I   | 56                                      | asbestos silicone  |                      |
| " "                        | Nos. 3 & 4 | I                         | 14   | 73,6                        | 9I    | 46                                      | " "                |                      |
| " "                        | No. 5      | I                         | 14   | 30,7                        | 9I    | 294                                     | " "                |                      |
| Navigation light           |            | I                         | 2  | 5,5                         | II    | 37,5                                    | marine lead armour |                      |
| Navigation apparatus board |            | I                         | 8  | 60                          | 64    | 42                                      | asbestos silicone  |                      |

MOTOR CABLES.

| ALL IMPORTANT MOTORS TO BE ENUMERATED. | No. | B.H.P. |   |                   |      |     |      |                    |
|--|-----|--------|---|-------------------|------|-----|------|--------------------|
| Air compressor                         | I   | 50     | I | 50mm <sup>2</sup> | 190  | 200 | 16m  | asbestos silicone  |
| " "                                    | 2   | "      | I | 50 "              | 190  | 200 | 17m  | " "                |
| Windlass                               |     | 63     | I | 95 "              | 232  | 294 | 135m | " "                |
| L.O. pump                              | I   | 52     | I | 50 "              | 193  | 200 | 38m  | " "                |
| " "                                    | 2   | "      | I | 50 "              | 193  | 200 | 33m  | " "                |
| Fresh water cooling pump               |     | 25     | I | 22 "              | 102  | 121 | 30m  | " "                |
| sea " " "                              |     | 25     | I | 22 "              | 102  | 121 | 35m  | " "                |
| Reserve cooling pump                   |     | 25     | I | 22 "              | 102  | 121 | 35m  | " "                |
| Steering gear                          | I   | 20     | I | 40 "              | 152  | 175 | 65m  | " "                |
| " "                                    | 2   | "      | I | 40 "              | 152  | 175 | 38m  | " "                |
| Bilge and fire pump                    | I   | 35     | I | 40 "              | 160  | 175 | 21m  | " "                |
| " " "                                  | 2   | "      | I | 40 "              | 160  | 175 | 26m  | " "                |
| Ballast pump                           |     | 29     | I | 30 "              | 122  | 147 | 42m  | " "                |
| Injector cooling pump                  | I   | 2      | I | 2 "               | 8,9  | 11  | 35m  | marine lead armour |
| " " "                                  | 2   | 2      | I | 2 "               | 8,9  | 11  | 35m  | " "                |
| L.O. Transfer pump                     |     | 2,5    | I | 3,5               | 10,5 | 16  | 40m  | " "                |
| F.O. " "                               |     | 12,5   | I | 8                 | 50   | 64  | 58m  | asbestos silicone  |
| Warping winch                          |     | 40     | I | 40                | 157  | 175 | 97m  | " "                |
| Middleship load winches                |     | 42     | I | 95                | 256  | 294 | 143m | " "                |
| Aft " "                                |     | (each) | I | 60                | 208  | 235 | 57m  | " "                |
| Fore " "                               |     |        | I | 95                | 256  | 294 | 217m | " "                |
| Generators cooling pump                |     | 8      | I | 8                 | 33   | 64  | 40m  | " "                |
| D.O. transfer pump                     |     | 2,75   | I | 3,5               | 11,4 | 16  | 35m  | marine lead armour |
| Main engine feeding pump               |     | 2      | I | 3,5               | 8,4  | 16  | 40m  | " "                |
| F.O. separator                         |     | 7      | I | 8                 | 30   | 64  | 54m  | asbestos silicone  |
| Storage separator                      |     | 7      | I | 8                 | 30   | 64  | 66m  | " "                |
| D.O. " "                               |     | 7      | I | 8                 | 30   | 64  | 78m  | " "                |
| L.O. " "                               |     | 7      | I | 8                 | 30   | 64  | 68m  | " "                |
| Tackle                                 |     |        | I | 5,5               | 14   | 21  | 31m  | marine lead armour |
| Turning gear                           |     | 8      | I | 8                 | 31   | 64  | 58m  | asbestos silicone  |

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.

L'Ingénieur Principal  
Chef du Service "ELECTRICITE"  
Signé: RODIERE

*Rodiere*

Electrical Contractors.

Date 26 Aout 1960



COMPASSES.

L'Ingénieur en Chef  
Signé: GUILLONDE

Have the compasses been adjusted under working conditions Yes

*Guillonde*

Builder's Signature.

Date 26 Aout 1960

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

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 equipement of this vessel has been installed on board under special survey, in accordance with the approved plans and the applicable requirements of the rules and Secretary's letters

The materials and workmanship are good.

The completed installation was examined under working conditions tested and found satisfactory and in our opinion, is suitable for a classed ship.

Total Capacity of Generators 600 Kilowatts.

The amount of Fee ... NF 3.300 - When applied for, 10.5.19.60

Travelling Expenses (if any) NF : 264,- 31.8.19.60

*JFA and*  
*L. J. F. J. J.*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRIDAY - 7 OCT 1960

Assigned See Rpt. 1.

501,650 - Transfer. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write in or below the space for Committee Minutes.)



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