

Rpt. 13.

No. 3571

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

22 AUG 1942

Date of writing Report. 14<sup>th</sup> Aug 1942 When handed in at Local Office. 19. Port of LISBONNo. in Survey held at LISBON Date, First Survey 4<sup>th</sup> June Last Survey 12<sup>th</sup> Aug 1942  
Reg. Book. (Number of Visits 12)

on the Motor Trawler "PORT NATAL."

Tons { Gross 30.7  
Net 12.8

Built at Lisbon By whom built Cia. União Fabril Yard No. 114 When built 1942

Owners Loch Fishing Co. of Hull Ltd. Port belonging to

Electrical Installation fitted by Cia. União Fabril Contract No. 2 When fitted 1942

Is vessel fitted for carrying Petroleum in bulk. No Is vessel equipped with D.F. E.S.D. Gy.C. Sub.Sig.

Have plans been submitted and approved. Yes System of Distribution Two wire Voltage of supply for Lighting 110

Heating. Power 110 Direct or Alternating Current, Lighting Direct Power Direct If Alternating Current state frequency Prime Movers,

has the governing been tested and found efficient when the whole load is suddenly thrown on and off. Yes Are turbine emergency governors fitted with a

trip 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 they

arranged to run in parallel. are shunt field regulators provided. 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. Have certificates of

test for machines under 100 kw. been supplied. Yes and the results found as per rule. Yes Are the lubricating arrangements and the construction

of the generators as per rule. Yes Position of Generators Starboard side of Engine Room.

is the ventilation in way of generators satisfactory. Yes are they clear of inflammable material. Yes, if situated

near unprotected combustible material state distance from same horizontally. and vertically. are the generators protected from mechanical

injury and damage from water, steam and oil. Yes are the bedplates and frames earthed. Yes and the prime movers and generators in metallic

contact. Yes Switchboards, where are main switchboards placed. Forward end of Engine Room.

are they in accessible positions, free from inflammable gases and acid fumes. Yes are they protected from mechanical injury and damage from water, steam

and oil. Yes, if situated near unprotected combustible material state distance from same horizontally. and vertically. what insulation

material is used for the panels. Ebony 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. Is the frame effectually earthed. Yes

Is the construction as per Rule. Yes, including accessibility of parts. Yes, absence of fuses on the back of the board. Yes, individual fuses

to 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 Double pole

linked switch with fuse on each pole.

and for each outgoing circuit Double pole linked switch with fuse on each pole.

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

ammeters. voltmeters. synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection. Earth Testing, state means provided Earth lamps.



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W1065-0127 1/2

Lloyd's Register  
Foundation



and where are the controlling switches fitted. Yes, are all fittings suitably ventilated. Yes,  
are all fittings and accessories constructed and installed as per Rule Yes Searchlight Lamps, No. of ✓, whether fixed or portable. ✓  
✓, are their fittings as per Rule ✓ 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 Yes and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water,  
steam and oil. Yes, if situated near unprotected combustible material state minimum distance from same horizontally. ✓ and vertically. ✓  
Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. ✓ Have certificates of test for motors under  
100 BHP intended for essential 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 ✓ 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. ✓, are all fuses of the cartridge type. ✓  
are they of an approved type. ✓ If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof  
type. ✓ Spare Gear, if the vessel is for open sea service have spares been provided as per Rule Yes, are they suitably stored in dry  
situations. Yes Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory. Yes

| DESCRIPTION<br>OF<br>GENERATOR. | No. of | RATED AT   |        |          |                   | DRIVEN BY       | WHERE DRIVEN BY AN INTERNAL<br>COMBUSTION ENGINE. |                     |
|---------------------------------|--------|------------|--------|----------|-------------------|-----------------|---|---------------------|
|                                 |        | Kilowatts. | Volts. | Ampères. | Revs.<br>per Min. |                 | Fuel Used.  | Flash Point of Fuel |
|                                 |        |            |        |          |                   |                 |   |                     |
| MAIN ... ..                     | 1      | 17.5       | 100    | 160      | 1000              | Aux. Oil engine | Diesel Oil  | above 150°F.        |
| EMERGENCY ... ..                |        |            |        |          |                   |                 |   |                     |
| ROTARY TRANSFORMER              |        |            |        |          |                   |                 |   |                     |

| DESCRIPTION.              | KILOWATTS. | CONDUCTORS.               |  | MAXIMUM CURRENT IN AMPERES. |       | APPROX. LENGTH (lead plus return feet). | INSULATED WITH. | HOW PROTECTED.          |
|---------------------------|------------|---------------------------|--|-----------------------------|-------|---|-----------------|-------------------------|
|                           |            | No. in Parallel Per Pole. | Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm. | In the Circuit.             | Eale. |   |                 |                         |
| MAIN GENERATOR            | 17.5       | 1                         | 37/0.083   | 160                         | 296   | 20                                      | Paper           | Lead covered + armoured |
| " EQUALISER               |            |                           |  |                             |       |   |                 |                         |
| EMERGENCY GENERATOR       |            |                           |  |                             |       |   |                 |                         |
| ROTARY TRANSFORMER: MOTOR |            |                           |  |                             |       |   |                 |                         |
| " GENERATOR               |            |                           |  |                             |       |   |                 |                         |

[illegible]

|                      |     |     |     |     |     |     |   |       |    |      |    |        |                        |
|----------------------|-----|-----|-----|-----|-----|-----|---|-------|----|------|----|--------|------------------------|
| WIRELESS             | ... | ... | ... | ... | ... | ... | 1 | 7/036 | 20 | 24 ✓ | 50 | Rubber | Lead covered & braided |
| NAVIGATION LIGHTS    | ... | ... | ... | ... | ... | ... | 1 | 7/036 | 6  | 28 ✓ | 50 | Paper  | " " - armored.         |
| LIGHTING AND HEATING | ... | ... | ... | ... | ... | ... |   |       |    |      |    |        |                        |
| Engine Room Lighting |     |     |     |     |     |     | 1 | 3/029 | 3  | 5 ✓  | 64 | Rubber | Lead covered & braided |
| "                    |     |     |     |     |     |     | 1 | 3/029 | 3  | 5 ✓  | 64 | "      | " " " "                |

[illegible]



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.

COMPANHIA UNIAO FABRIL  
Arrendataria do  
ESTALEIRO NAVAL DA A.G.P.L.  
*[Signature]*

Electrical Engineers.

Date 14/8/42

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 24'

Minimum distance between electric generators or motors and steering compass 8'

The nearest cables to the compasses are as follows:—

A cable carrying 6 Ampères 5 feet from standard compass 4 feet from steering compass.

A cable carrying 117 Ampères 17 feet from standard compass 10 feet from steering compass.

A cable carrying — Ampères — feet from standard compass — feet from steering compass.

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

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.

COMPANHIA UNIAO FABRIL  
Arrendataria do  
ESTALEIRO NAVAL DA A.G.P.L.  
*[Signature]*

Builder's Signature.

Date 14/8/42

Is this installation a duplicate of a previous case Yes If so, state name of vessel PORT JACKSON - PORT MADOC

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The above electrical installation has been satisfactorily fitted on board this vessel in accordance with the approved plan & the Society's Rules. The materials and workmanship are good. The insulation has been tested throughout and the installation examined under working conditions & found in order.

The dynamo test certificate was not forwarded to this office.

The installation in my opinion is eligible to be classed.

Noted  
L.H.  
25/8/42

Total Capacity of Generators 17.5 Kilowatts.

The amount of Fee ...

Inclusive  
See Hull Rpt.

When applied for,

.....19.....

Travelling Expenses (if any)

When received.

.....19.....

Surveyor to Lloyd's Register of Shipping.

FRI. 28 AUG 1942

Committee's Minute

Assigned

See Lis & E 3571