

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

4 FEB 1943

Received at London Office.....

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of.....Hull

No. in Survey held at Hull & Hull Date, First Survey 21. 11. 42, Last Survey 12. 1. 43  
Reg. Book. (Number of Visits.....4.....)on the EMPIRE OBERON "TUG" Tons {Gross.....24.2.....  
Net.....Nil.....Built at Hull By whom built Henry Scan Yard No. 424 When built 1942/3Owners Ministry of War Transport Port belonging to.....Electrical Installation fitted by Wm Broadway & Son Ltd Contract No..... When fitted 1942/3Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. NoHave plans been submitted and approved Yes System of Distribution two wire Voltage of supply for Lighting 110Heating..... Power..... Direct or Alternating Current, Lighting AC Power..... If Alternating Current state periodicity..... Prime Movers,has the governing been tested and found as per Rule when full load is suddenly thrown on and off Yes Are turbine emergency governors fitted with atrip 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 Yes Is the compound winding connected to the negative or positive poleNegative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing..... Have certificates oftest for machines under 100 kw. been supplied Yes and the results found as per rule Yes Are the lubricating arrangements and the constructionof 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 metalliccontact Yes Switchboards, where are main switchboards placed Starboard side of engine room neargenerators on forward bulkhead.are they in accessible positions, free from inflammable gases and acid fumes Yes, are they protected from mechanical injury and damage from water, steamand oil Yes, if situated near unprotected combustible material state distance from same horizontally..... and vertically....., what insulationmaterial is used for the panels "Dinsamys", if of synthetic insulating material is it an Approved Type Yes, if ofsemi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule..... Is the frame effectually earthed YesIs the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board Yes, individual fusesto 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, pushbreak knife switches & double pole fuses, with double throw switchesfor each generator.and for each outgoing circuit Double & single pole, push break knife switches & doublepole fuses.Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2ammeters 2 voltmeters..... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to theequaliser connection..... Earth Testing, state means provided Lamps coupled to earth via switches & fusesSwitches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Yes, are all fuses labelled asper Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested....., are the reversed current

protection devices connected on the pole opposite to the equaliser connection....., have they been tested under working conditions, and at what current

did they operate..... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YesCables, are they insulated and protected as per the appropriate Tables of the Rules 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 2.5", are the ends of all cables having a sectional area of 0.04square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends.....



PARTICULARS OF GENERATING PLANT.

## GENERATOR CABLES.

| DESCRIPTION.                     | KILOWATTS. | CONDUCTORS.               |  | MAXIMUM CURRENT IN AMPERES. |       | APPROX. LENGTH (lead plus return feet). | INSULATED WITH. | HOW PROTECTED. |
|----------------------------------|------------|---------------------------|--|-----------------------------|-------|---|-----------------|----------------|
|                                  |            | No. in Parallel For Pole. | Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm. | In the Circuit.             | Rule. |   |                 |                |
| MAIN GENERATOR ... ..            | 4          | 1                         | 7/064  | 46                          | 44    | VIR                                     | LC              |                |
| " " <del>EQUATISE</del> N°2 ...  | 4          | 1                         | 7/064  | 46                          | 34    | VIR                                     | L.C             |                |
|                                  |            |                           |  |                             |       |   |                 |                |
|                                  |            |                           |  |                             |       |   |                 |                |
|                                  |            |                           |  |                             |       |   |                 |                |
| EMERGENCY GENERATOR ... ..       |            |                           |  |                             |       |   |                 |                |
| ROTARY TRANSFORMER: MOTOR ... .. |            |                           |  |                             |       |   |                 |                |
| GENERATOR ... ..                 |            |                           |  |                             |       |   |                 |                |

[illegible][illegible][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.

**WM BROADY & SON LTD.**  
ENGLIST STREET,  
HULL.

Electrical Engineers.

Date 14.1.43.

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 50 ft

Minimum distance between electric generators or motors and steering compass 45 ft

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères inside feet from standard compass 5 feet from steering compass.

A cable carrying 2 Ampères 5 feet from standard compass inside 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 every course in the case of the standard compass, and Nil degrees on every course in the case of the steering compass.

Spissick

SECRETARY.

Builder's Signature.

Date 16/1/43.

Is this installation a duplicate of a previous case Yes If so, state name of vessel TITAN

Plans. Are approved plans forwarded herewith Yes If not, state date of approval 10.12.42

Certificates. Are certificates of test for motors engaged on essential 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

equipment of this vessel was installed under special survey and in accordance with the approved plans and with the specification. The materials used are of good quality and the workmanship is good. On completion the equipment was operated under working conditions with satisfactory results and the insulation resistance of all circuits and apparatus measured and found good.

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

Noted

L.H.

9/2/43.

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... £ 8 : 0 : 0 When applied for, 1 FEB 1943  
25% for spec 2 : 0 : 0  
Travelling Expenses (if any) £        :        :        When received,        19      

W.H. Cornell

Surveyor to Lloyd's Register of Shipping.

TUE 16 FEB 1943

Committee's Minute       

Assigned See Hull JE 51858



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Foundation