

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

24 NOV 1944

Date of writing Report... 16-10-1944 When handed in at Local Office... 16-10-1944 Port of... LIVERPOOL.

No. in Survey held at... NORTHWICH. Date, First Survey... 18-5-44 Last Survey... 17-10-1944  
Reg. Book. S.S. "EMPIRE FULHAM" (Number of Visits... 4)

on the... Tons { Gross... 222  
Net...

Built at... NORTHWICH. By whom built... W. J. YARWOOD & SONS LTD. Yard No... 760 When built... 1944

Owners... Port belonging to...

Electrical Installation fitted by... W. J. YARWOOD & SONS LTD. Contract No... 760 When fitted... 1944

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

Have plans been submitted and approved... Yes System of Distribution... 3 wire Voltage of supply for Lighting... 110

Heating... Power... Direct or Alternating Current, Lighting... D.C. 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 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... Yes Is the compound winding connected to the negative or positive pole

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... In 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... In Engine Room near generators.

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... Shidanyo... 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...

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 switch

and for each outgoing circuit... Double pole switch & fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Instruments on main switchboard... 1

ammeters... 1 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... Basic lamps.

Switches, Circuit Breakers and Fuses, are they as per Rule... Yes, are the fuses an approved type... Yes, are all fuses labelled as

per 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... Yes

Cables, 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... 1.5 Volts, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets... All less than 0.04. Are paper insulated and varnished cambric insulated cables sealed at the ends.



PARTICULARS OF GENERATING PLANT.

## GENERATOR CABLES.

### MAIN DISTRIBUTION CABLES.

LIGHTING AND HEATING, ETC., CABLES.

## MOTOR CABLES.

[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.

W. & J. TAYLOR & SONS (1938) LTD.

*Albert J. J. J. J.*

Electrical Engineers.

Date 17/10/44

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass —

Minimum distance between electric generators or motors and steering compass 40 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères — feet from standard compass 8 feet from steering compass.

A cable carrying 0.2 Ampères — feet from standard compass Admit 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 — degrees on — course in the case of the standard compass, and — degrees on — course in the case of the steering compass.

*Albert J. J. J. J.*

Builder's Signature.

Date 17/10/44

Is this installation a duplicate of a previous case Yes. If so, state name of vessel "EMPIRE BARNBY."

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

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 has been installed under special survey and in accordance with the approved plans & specification. The installation has been tested under full working conditions and found satisfactory. The materials and workmanship are good.

Noted

Thru

29.11.44

Total Capacity of Generators 5 Kilowatts.

The amount of Fee ... £ 6 : 5 : 0 When applied for, 20 NOV 1944

Travelling Expenses (if any) £ : 15 : 0 When received, —

*H. Haffner*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 21 NOV 1944

Assigned See attached machinery report.



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