

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 21 OCT 1941

Received at London Office.....

Date of writing Report 8.10.41 When handed in at Local Office.....19..... Port of Middlesbrough

No. in Survey held at Thurston Hill-on-Sea Date, First Survey 15-8-41 Last Survey 6-10-1941  
Reg. Book.36312 on the S/S "EMPIRE EMERALD" Tons { Gross 8032.20  
Net 4675.62

Built at Thurston Hill-on-Sea By whom built James Shipbuilding Co Ltd Yard No. 334 When built 1941

Owners The Ministry of War Transport. Port belonging to Middlesbrough

Electrical Installation fitted by James Shipbuilding Co Ltd Contract No. 334 When fitted 1941

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

Have plans been submitted and approved Yes System of Distribution Two-Wire insulated Voltage of supply for Lighting 110

Heating Power 110 Direct or Alternating Current, Lighting Yes Power Yes 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 No, are shunt field regulators provided Yes 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 engine room aft on raised platform

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 engine room aft on raised platform

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 "Sindamyo", 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

quick-break knife switch and double pole fuse.

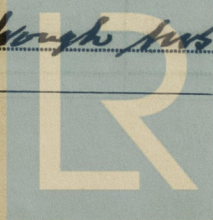
and for each outgoing circuit Double pole, double throw, quick break knife switch

and double pole fuse.

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

ammeters Two 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 E lamps coupled to E through two fuses.





PARTICULARS OF GENERATING PLANT.								
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	2	20	110	182	600	Single Cylinders Steam Engines		
EMERGENCY ...								
ROTARY TRANSFORMER								

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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.

*P. J. Glavin*

Electrical Engineers.

Date *13.10.41*

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass *283 ft.*

Minimum distance between electric generators or motors and steering compass *280 ft.*

The nearest cables to the compasses are as follows:—

A cable carrying *1/4* Ampères *in the* feet from standard compass *7* feet from steering compass.

A cable carrying *1/4* Ampères *7* feet from standard compass *in the* feet from steering compass.

A cable carrying *0.01* Ampères *0.01* feet from standard compass *0.01* 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.

*GUINNESS SHIPBUILDING CO. LIMITED,*

Builder's Signature.

Date *13/10/41*

Secretary.

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *"Empire Gold"*

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 in accordance with the Ministry of Shipping Specification and amendments thereto. The materials used are of good quality and design and the workmanship is good. On completion the equipment was run under full working conditions with satisfactory results, and the insulation resistance of each circuit was measured and found good. This equipment is in my opinion suitable for a classed vessel.*

*Noted*

*L.H.*  
*24/10/41*

Total Capacity of Generators *20 (+20.04)* Kilowatts.

The amount of Fee ... *£25 : 0 : 0* When applied for, *20.10.1941*  
Travelling Expenses (if any) £ : : When received, *19*

*S.D. Med*

Surveyor to Lloyd's Register of Shipping.

FRL 31 OCT 1941

Committee's Minute

Assigned *See Mdb. J.E. 17123*



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