

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of.....HULL.....
 Received at London Office.....19 APR 1943.....

No. in Survey held at..... Date, First Survey.....18. 2. 43..... Last Survey.....1. 4. 1943.....
 Reg. Book..... (Number of Vicks.....3.....)

66539 on the Steam Ship EMPIRE HARRY Tons { Gross.....482
 Net.....402

Built at.....Goole..... By whom built.....Goole Shipbuilding & Repairing Co. No. 387..... When built.....1943

Owners.....Ministry of War Transport..... Port belonging to.....

Electrical Installation fitted by.....Humber Electrical Engineering Co Ltd..... Contract No..... When fitted.....1943

Is vessel fitted for carrying Petroleum in bulk..... Is vessel equipped with D.F. ho E.S.D. ho Gy.C. ho Sub.Sig. ho

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

Heating.....ho Power.....ho Direct or Alternating Current, Lighting.....DC 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

.....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 starboard side

..... 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 starboard near generator

..... 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....."Lindamys"..... if of synthetic insulating material is it an Approved Type.....Yes..... if of

semi-insulating material (state 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

.....single throw, knife switches, and double pole fuses

and for each outgoing circuit.....Double pole, single throw, quick break, knife switches, and

.....double pole fuses

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

ammeters.....one..... 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.....Lamps connected to earth via switches & fuses

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.....2V..... are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets.....Yes..... Are paper insulated and varnished cambric insulated cables sealed at the ends.....

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what is the battery capacity in ampère hours.....

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing..... Have certificates of test for motors under

and found satisfactory.....

PARTICULARS OF GENERATING PLANT

PARTICULARS OF GENERATING UNIT.							
DESCRIPTION OF GENERATOR.	No. of	RATED AT				WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères. per Min.	DRIVEN BY	Fuel Used.	Flash Point of Fuel.
MAIN	1	7½	110	64 709 See Hub 166	550 750 Steam engine		
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.	Rule.			
MAIN GENERATOR	227½	1	191.004 191.083	04 709	83 718	15	VIR	LC = A
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

[illegible]

WIRELESS	1	7/044	10	31	130	VIR	LC.7A
NAVIGATION LIGHTS	1	7/029	10	15	130	"	"
LIGHTING AND HEATING							
Accommodation forward	1	7/064	30	46	140	"	"
Engine & boiler room aft	1	7/044	18	31	6	"	"
1st Search light	1	7/086	10	24	46	"	LC 7
Domestic supply	1	3/036	7	10	25	"	"

[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.

FOR THE SHIPBUILDING & REPAIRING CO. LTD.

W. E. Shutesworth

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

70 ft

Minimum distance between electric generators or motors and steering compass

65 ft

The nearest cables to the compasses are as follows:—

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

A cable carrying 4 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

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.

FOR THE SHIPBUILDING & REPAIRING CO. LTD.

6 Feb 1943

Builder's Signature.

Date

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

EMPIRE OAK.

Plans. Are approved plans forwarded herewith

If not, state date of approval

15.3.41

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

Yes

Received 2/4/43

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 was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted

21/4/43

Total Capacity of Generators

12

Kilowatts.

The amount of Fee

Answers

£ 12 : 0

When applied for,

25% for Spec

£ 3 : 0

When received.

Travelling Expenses (if any) £

19

W. E. Cornell

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 30 APR 1943

Assigned

See F.12 machy rpt