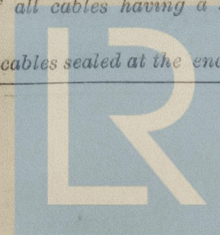


REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 16th August 1943 When handed in at Local Office... 22nd June 1943 Port of... GLASGOWNo. in Survey held at... GLASGOW Date, First Survey... 17th June Last Survey... 17th August 1943
Reg. Book. (Number of Visits... 14)37287 on the... EMPIRE DARING Tons { Gross... 7059
Net... 4801Built at... PORT GLASGOW By whom built... W^M HAMILTON & CO LTD Yard No. 459 When built... 1943Owners... MINISTRY OF WAR TRANSPORT Port belonging to... GREENOCKElectrical Installation fitted by... M^{ESSRS} SUNDERLAND FORGE & ENGINEERING CO LTD Contract No. 459 When fitted... 1943Is vessel fitted for carrying Petroleum in bulk... — Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. — Sub.Sig. —Have plans been submitted and approved... Yes System of Distribution... Two wire Voltage of supply for Lighting... 110Heating... — Power... 110 Direct or Alternating Current, Lighting... D.C. Power... D.C. 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 theyarranged to run in parallel... No, are shunt field regulators provided... Yes Is the compound winding connected to the negative or positive polePositive 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... In engine roomis the ventilation in way of generators satisfactory... Yes are they clear of inflammable material... Yes, if situatednear unprotected combustible material state distance from same horizontally... — and vertically... —, are the generators protected from mechanicalinjury 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... In engine room above generators.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... Linoleum, 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...150 Amp. D.P. Knife pattern switch with two S.P. 200 Amp. fuses.and for each outgoing circuit... 60 or 30 amp. D.P. change-over switches with fuses.Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... — 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... Earth lamps.Switches, 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 currentprotection devices connected on the pole opposite to the equaliser connection... —, have they been tested under working conditions, and at what currentdid 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... W.E.state maximum fall of pressure between bus bars and any point under maximum load... Lighting 4.4 VOLTS. POWER 6.6 VOLTS. 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... Yes

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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	15	1	19/064	136	138	60	K.C.	L.C.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

[illegible]

WIRELESS	1	7/064	15	46	420	W.E.	In Steel Pipe.
NAVIGATION LIGHTS	1	7/064	7.3	31	80	W.E.	In Steel Pipe.
LIGHTING AND HEATING							
FORWARD MASTHOUSE, D.B.	1	7/064	13	31	320	W.E.	In Steel Pipe.
AFTER MASTHOUSE, D.B.	1	7/064	22.3	46	200	W.E.	In Steel Pipe.
CREWS QUARTERS LIGHTING D.B.	1	7/064	15.6	46	200	W.E.	In Steel Pipe.
SALON LIGHTING D.B.	1	7/064	23.3	46	10	W.E.	
ENGINEERS QUARTERS LIGHTING D.B. STD.	1	7/036	12	24	10	W.E.	
ENGINEERS QUARTERS LIGHTING D.B. PORT.	1	7/036	11.1	24	90	RUBBER.	L.C.
ENGINE ROOM	1	7/036	17	24	60	RUBBER.	L.C.

[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.

P.Pro. THE SUNDERLAND FORGE & ENGINEERING CO. LTD.

Electrical Engineers.

Date 17th August 1943.

COMPASSES.

Minimum distance between electric generators or motors and standard compass Twenty two feet.

Minimum distance between electric generators or motors and steering compass Twenty feet.

The nearest cables to the compasses are as follows:—

A cable carrying 7.3 Amperes 9 feet from standard compass 7 feet from steering compass.

A cable carrying 16 Amperes led into feet from standard compass led into feet from steering compass.

A cable carrying Amperes 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.

Builder's Signature.

Date 19 Aug 1943

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

Plans. Are approved plans forwarded herewith No If not, state date of approval 24/3/43

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 fitted on board under special survey, tested under working conditions and found satisfactory. All the requirements of the approved plans and M.O.W.T. Specification have been carried out. The materials and workmanship are good.

Total Capacity of Generators 30 Kilowatts.

The amount of Fee £ 22 : 10 :

SPECIFICATION FEE. £ 5 : 12/6

Travelling Expenses (if any) £ :

When applied for,

When received.

19.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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Foundation