

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office..... MAY 29 1940

Date of writing Report.....19..... When handed in at Local Office.....27 MAY 1940..... Port of HULL

No. in Survey held at Hull Date, First Survey 29.3.40 Last Survey 12.5.1940
 Reg. Book. (Number of Visits.....31.....)

39527 on the steam "EMPIRE SUCCESS" ex "IXIA" Tons {Gross.....6009.....
 Net.....3646.....

Built at Hamburg By whom built Vulcan Werke Yard No..... When built 1921

Owners Ministry of Shipping Port belonging to London

Electrical Installation fitted by..... Contract No..... When fitted 1921

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

Have plans been submitted and approved..... System of Distribution Single wire with hull return Voltage of supply for Lighting 115

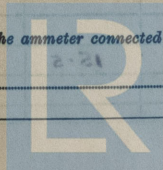
Heating..... Power..... Direct or Alternating Current, Lighting Direct Power..... If Alternating Current state frequency..... Prime Movers,

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 Yes Generators, are they compound wound Yes, are they level compounded under working conditions....., 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..... 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..... and the results found as per rule..... Are the lubricating arrangements and the construction of the generators as per rule Yes Position of Generators Bottom platform in EH shell casings by lower tween deck + casings, 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 Bottom platform adjoining 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 Marble, if of synthetic insulating material is it an Approved Type....., if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Yes Is the frame effectually earthed Yes Is the construction as per Rule....., 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 Single pole double throw

and for each outgoing circuit Rotary switches and single pole knife switches

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2 ammeters 2 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



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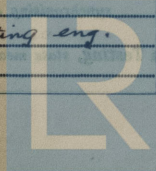
Switches, Circuit Breakers and Fuses, are they as per Rule....., are the fuses an approved type Yes, are all fuses labelled as per Rule Yes, are the reversed current protection devices connected on the pole opposite to the equaliser connection....., have they been tested under working conditions..... 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....., 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 exposed ends with insulating compound..... or waterproof insulating tape Yes. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage Yes, are cables laid under machines or floorplates No, if so, are they adequately protected..... Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit..... State how the cables are supported and protected Protected by sheet iron plating secured by metal clips + screws

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes. Refrigerated chambers, are the cables and fittings as per Rule..... Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed Yes and with what material Lead. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Yes. Emergency Supply, state position Oil lamps only and method of control.....

Navigation Lamps, are they separately wired Yes controlled by separate double pole switches separate single pole and fuses Yes. Are the switches and fuses in a position accessible only to the officers on watch Yes, is an automatic indicator fitted Yes. Secondary Batteries, are they constructed and fitted as per Rule....., are they adequately ventilated..... Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present No, if so, how are they protected..... and where are the controlling switches fitted....., are all fittings suitably ventilated..... are all fittings and accessories constructed and installed as per Rule..... Searchlight Lamps, No. of....., whether fixed or portable....., are the fittings as per Rule..... Heating and Cooking, is the general construction as per Rule..... are the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and installed as per Rule..... and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil....., if situated near unprotected combustible material state minimum distance from same horizontally..... and vertically..... Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing..... Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule..... Control Gear and Resistances, are they constructed and fitted as per Rule..... Lightning Conductors, where required are they fitted as per Rule..... Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with....., are all fuses of the cartridge type..... are they of an approved type..... If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type..... Spare Gear, if the vessel is for open sea service have spares been provided as per Rule....., are they suitably stored in dry situations..... Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory Yes

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 ...		20	115	175	5,000	Turbine		
EMERGENCY ...		15.5	115	135	300	Reciprocating eng.		
ROTARY TRANSFORMER								



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GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return fee).	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	20	1	20	180	184	12	VIR	Lead covered + Braided
" " EQUALISER								
EMERGENCY GENERATOR	15.5	1	15	136	152	12	"	"
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR								

MAIN DISTRIBUTION CABLES

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

[illegible]

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.

Electrical Engineers. Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

Minimum distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass 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.

Builder's Signature. Date

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

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The workmanship and materials used appear good.
Insulation tests carried out and made satisfactory.
Generators tried under working conditions and found satisfactory.

Total Capacity of Generators 35.5 Kilowatts.

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

W. S. Shields & Co. Surveyors
Surveyors to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Lib. No. 50675



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