

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... MAR. 6. 1940

Date of writing Report... 19... When handed in at Local Office... 5 MAR 1940... Port of... HULL

No. in Survey held at... Goole... Date, First Survey... 21. 12. 39... Last Survey... 10. 2. 1940... (Number of Visits... 9...)

Reg. Book. on the motor vessel "ALACRITY"

Built at... Goole... By whom built... The Goole Shipbuilding & Repairing Co. Ltd... Yard No. 347... When built... 1940

Owners... P. J. Everard & Sons Ltd... Port belonging to... London

Electrical Installation fitted by... Hunter Electrical Engineering Ltd... Contract No. ... When fitted... 1940

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... Parallel constant pressure Voltage of supply for Lighting... 110 two wire

Heating... ☒ Power... 110 Direct or Alternating Current, Lighting... DC Power... DC 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... ☒ Are turbine emergency governors fitted with a trip switch as per Rule... ☒ Generators, are they compound wound... ☒ 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... ☒ Is the compound winding connected to the negative or positive pole

positive 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... ☒

Position of Generators... 5 1/2 kw Hub side & 14 kw Port side of engine room is the ventilation in way of generators satisfactory... ☒ are they clear of inflammable material... ☒ 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... ☒

are the bedplates and frames earthed... ☒ and the prime movers and generators in metallic contact... ☒ Switchboards, where are main switchboards placed... Port side, engine room, aft end adjacent to Generator

are they in accessible positions, free from inflammable gases and acid fumes... ☒ are they protected from mechanical injury and damage from water, steam and oil... ☒ if situated near unprotected combustible material state distance from same horizontally... and vertically... what insulation material is used for the panels... Synthetic - Switched by Power Equip. Co. Ltd, London if of synthetic insulating material is it an Approved Type... not known

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... ☒ including accessibility of parts... ☒ absence of fuses on the back of the board... ☒ individual fuses to pilot and earth lamps, voltmeters, etc... ☒ locking of screws and nuts... ☒ labelling of apparatus and fuses... ☒ fuses on the "dead" side of switches... ☒

Description of Main Switchgear for each generator and arrangement of equaliser switches... S.P. change over switches & fuses for each generator

and for each outgoing circuit... S.P. switches & fuses circuit breakers for winches

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... ☒ 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... Earth lamps

Switches, Circuit Breakers and Fuses, are they as per Rule Ys, are the fuses an approved type Ys, are all fuses labelled as per Rule Ys, are the reversed current protection devices connected on the pole opposite to the equaliser connection Ys, have they been tested under working conditions Ys. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule Ys. Cables, are they insulated and protected as per the appropriate Tables of the Rules Ys, if otherwise than as per Rule are they of an approved type Ys, state maximum fall of pressure between bus bars and any point under maximum load 3, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Ys. Are paper insulated and varnished cambric insulated cables sealed at the exposed ends Ys with insulating compound Ys or waterproof insulating tape Ys. 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 Ys, are cables laid under machines or floorplates Ys, if so, are they adequately protected Conduit. Are cables in machinery spaces, galleys, laundries, etc., lead covered Ys or run in conduit Ys. State how the cables are supported and protected clipped to steel + woodwork or run in conduit

Are all lead sheaths, armouring and conduits effectually bonded and earthed Ys. Refrigerated chambers, are the cables and fittings as per Rule None. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Ys, where unarmoured cables pass through beams, etc., are the holes effectively bushed Ys and with what material Lead. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Ys. Emergency Supply, state position None and method of control Ys

Navigation Lamps, are they separately wired Ys controlled by separate double pole switches Ys and fuses Ys. Are the switches and fuses in a position accessible only to the officers on watch Ys, is an automatic indicator fitted Ys. Secondary Batteries, are they constructed and fitted as per Rule None, are they adequately ventilated Ys

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Ys. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present None, if so, how are they protected Ys

and where are the controlling switches fitted Ys, are all fittings suitably ventilated Ys

are all fittings and accessories constructed and installed as per Rule Ys. Searchlight Lamps, No. of None, whether fixed or portable Ys

Ys, are their fittings as per Rule Ys. Heating and Cooking, is the general construction as per Rule Ys

are the frames effectually earthed Ys, are heaters in the accommodation of the convection type Ys. Motors, are all motors constructed and installed as per Rule Ys and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil Ys, if situated near unprotected combustible material state minimum distance from same horizontally Ys and vertically Ys

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing None. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule See below

Control Gear and Resistances, are they constructed and fitted as per Rule Ys. Lightning Conductors, where required are they fitted as per Rule Ys. 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 Ys, are all fuses of the cartridge type Ys

are they of an approved type Ys. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type Ys. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule See below are they suitably stored in dry situations Ys. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory Ys

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 ...	<u>One</u>	<u>14</u>	<u>110</u>	<u>127</u>	<u>1000</u>	<u>Over Diesel engine</u>	<u>Heavy Oil</u>	<u>Above 150° F.</u>
	<u>one</u>	<u>5 3/4</u>	<u>110</u>	<u>52</u>	<u>1000</u>	<u>do</u>	<u>do</u>	<u>do</u>
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

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 ...	<u>14</u>	<u>2</u>	<u>19.052</u>	<u>127</u>	<u>128</u>	<u>32</u>	<u>VIR</u>	<u>Conduit</u>
" " EQUALISER ...	<u>5 3/4</u>	<u>1</u>	<u>10</u>	<u>52</u>	<u>64</u>	<u>80</u>	<u>do</u>	<u>do</u>
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR ...								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS ...								
Accommodation	After board	1	7.029	9	15	80	VIR	Conduit
do	Star -"-	1	do	6	15	160	"	"
Navigation		1	3.036	3	10	160	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ...	<u>1</u>	<u>7.029</u>	<u>6</u>	<u>15</u>	<u>160</u>	<u>VIR</u>	<u>Conduit</u>
NAVIGATION LIGHTS ...	<u>1</u>	<u>1.044</u>	<u>6</u>	<u>15</u>	<u>180</u>	<u>"</u>	<u>LC + "</u>
LIGHTING AND HEATING							
<u>Headend Light</u>	<u>1</u>	<u>3.036</u>	<u>6</u>	<u>10</u>	<u>200</u>	<u>"</u>	<u>Conduit</u>
<u>Engine room</u>	<u>1</u>	<u>7.029</u>	<u>6</u>	<u>15</u>	<u>260</u>	<u>"</u>	<u>"</u>
<u>Accommodation</u>	<u>1</u>	<u>1.044</u>	<u>2.5</u>	<u>5</u>	<u>50</u>	<u>"</u>	<u>LC + "</u>
	<u>1</u>	<u>1.044</u>	<u>2</u>	<u>5</u>	<u>60</u>	<u>"</u>	<u>LC</u>

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
<u>Branch fuse</u>	<u>1</u>	<u>8 1/2</u>	<u>1</u>	<u>19.052</u>	<u>18/65</u>	<u>68</u>	<u>200</u>	<u>VIR</u>
<u>Navigation Engine</u>	<u>1</u>	<u>8 1/2</u>	<u>1</u>	<u>10</u>	<u>18/65</u>	<u>68</u>	<u>90</u>	<u>"</u>
	<u>1</u>	<u>—</u>	<u>1</u>	<u>7.044</u>	<u>28</u>	<u>31</u>	<u>160</u>	<u>"</u>

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.

BY THE HONORABLE ELECTRICAL ENGINEERS CO

W. E. Huntworth

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

Minimum distance between electric generators or motors and steering compass

125 ft. generator 12 ft. steering motor

The nearest cables to the compasses are as follows:—

A cable carrying 5 Ampères feet from standard compass 60 feet from steering compass.

A cable carrying 6 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 Nil degrees on any course in the case of the standard compass, and degrees on the case of the steering compass.

G. F. Cross

Builder's Signature.

Date

Director

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

W. Spinality

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

This electric installation has been fitted on board under special survey in accordance with the approved plans & the Rules. The workmanship & materials are good & when tried & tested under full working conditions it was found satisfactory in every respect. The spare is not on board but will be placed on board at Greenhithe by the turners. No makers certificates have yet been forwarded for the steering motor which has been supplied by the turners.

Total Capacity of Generators

19 3/4 Kilowatts.

The amount of Fee

£ 10 : 0 :

When applied for,

5 MAR 1940

Travelling Expenses (if any)

£ : :

When received.

1.5.1940

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 15 MAR 1940

Assigned

See HUL 25.50553