

Rpt. 13.

REPORT ON ELECTRIC FITTINGS.

No. 44511

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 20-3-1925 When handed in at Local Office 14.4.25 Port of GLASGOW Received at London Office 16 APR 1925

No. in Survey held at GLASGOW

Date, First Survey 27.2.25 Last Survey 19.3.1925

Reg. Book. 90963 on the M.V. THISTLEROS

(Number of Visits 6)

Built at GLASGOW

By whom built D & W. HENDERSON LTD

Tons { Gross 4614
Net 2705

Owners THE ALBYN LINE LTD

Yard No. 675 When built 1925

Port belonging to SUNDERLAND

Electric Light Installation fitted by CAMPBELL & ISHERWOOD LTD

Contract No. 675 When fitted 1925

System of Distribution

DOUBLE WIRE

Pressure of supply for Lighting

220

volts, Heating

220

volts, Power

220

volts.

Direct or Alternating Current, Lighting

DIRECT

Power

DIRECT

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

Generators, do they comply with the requirements regarding overload

, are they compound wound

are they over compounded 5 per cent.

, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel

, is an adjustable regulating resistance fitted in

series with each shunt field

Are all terminals accessible and clearly marked

, are they so spaced or shielded that they cannot be accidentally earthed,

or short circuited

Are the lubricating arrangements of the generators as per Rule

Position of Generators

is the ventilation in way of the generators satisfactory

, are they clear of all inflammable material

if situated near unprotected woodwork or other combustible material

state distance of same horizontally from or vertically above the generators

and

, are the generators protected from mechanical injury and damage from water, steam or oil

are their axis of rotation fore and aft

Earthing, are the bedplates and frames of the generating plant efficiently earthed

their respective generators in metallic contact

are the prime movers and

Main Switch Boards, where placed

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes

are they protected from mechanical injury and damage from water, steam or oil

, if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

and

are they constructed wholly of durable, incombustible non-absorbent materials

, is all insulation of high dielectric strength and of

permanently high insulation resistance

, if semi-insulating material is used, are all conducting parts connected to one pole

insulated from the slab with mica or micanite and the slab similarly insulated from its framework

, and is the

frame effectively earthed

Are the following fittings as per Rule, viz. :— spacing or shielding of live parts

, accessibility of all parts

, absence of fuses on back of board

, proportion of omnibus

bars

, individual fuses to voltmeter, pilot or earth lamp

, connections of switches

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Instruments on main switchboard

ammeters

voltmeters

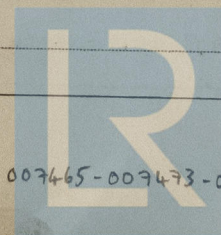
synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule

YES



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Foundation

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Insulation of Cables, state type of cables, single or twin BOTH are the cables insulated and protected as per Tables III or IV of the Rules YES

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 1 VOLT.

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 square inch and above provided with soldering sockets YES

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound NO PAPER CABLES.

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage YES

Support and Protection of Cables, state how the cables are supported and protected SHEET IRON TRAYS & COVERS
LEAD COVERED & LEAD COVERED & ARMoured.

If cables are run in wood casings, are the casings and caps secured by screws _____, are the cap screws of brass _____, are the cables run in separate grooves _____. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VI YES

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements _____

Joints in Cables, state if any, and how made, insulated, and protected NO JOINTS

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands YES

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed YES state the material of which the bushes are made LEAD OR FIBRE

Earthing Connections, state what earthing connections are fitted and their respective sectional areas _____, are their connections made as per Rule _____

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule NO ALTERNATIVE LIGHTING

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven NONE

Navigation Lamps, are these separately wired YES _____, controlled by separate switch and separate fuses YES
are the fuses double pole YES _____, are the switches and fuses grouped in a position accessible only to the officers on watch YES
has each navigation lamp an automatic indicator as per Rule YES _____, are separate screens provided for the use of oil and electric side lights YES
are separate oil lanterns provided for the mast head lights and side lights YES

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight YES
are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected _____
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected _____, how are the cables run _____
where are the controlling switches situated _____

Searchlight Lamps, No. of _____, whether fixed or portable _____, are their fittings as per Rule _____

Are Lamps, other than searchlight lamps, No. of _____, are their live parts insulated from the frame or case _____, are their fittings as per Rule _____

Motors, are their working parts readily accessible YES _____, are the coils self-contained and readily removable for replacement YES.
are the brushes, brush holders, terminals and lubricating arrangements as per Rule YES _____, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material YES, ON DECK.
are they protected from mechanical injury and damage from water, steam or oil YES _____ are their axis of rotation fore and aft NO only Win STEE
if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type TOTALLY ENCL. if not of this type, state distance of the combustible material horizontally or vertically above the motors _____ and _____

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule YES,

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule _____

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings _____

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office _____

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									
AUXILIARY									
EMERGENCY									
ROTARY TRANSFORMER									

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR... ..								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER... ..								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.0075 ✓	7	.029	15	56	VIR	LC & A
	BOILER ROOM								
	POOP	2	.0225 ✓	7	.064	35	490	"	"
	MIDSHIPS	2	.0750 ✓	19	.072	76	126	"	"
	SALOON	2	.1000 ✓	19	.083	98	236	"	"
	NAVIGATION	2	.0030 ✓	3	.036	10	300	"	"
	WIRELESS	2	.0070 ✓	7	.036	15	290	"	"
	SEARCHLIGHT								
	MASTHEAD LIGHT... ..								
	SIDE LIGHTS... ..								
	COMPASS LIGHTS								
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS	1	.15 ✓	37	.072	156	180	VIR	LC & A
	WINCHES, FORWARD	6	.6 ✓	91	.093	606	60	"	"
	WINCHES, AFT	7	.25 ✓	37	.093	439	332	"	"
	STEERING GEAR	1	.06 ✓	19	.064	75	588	"	"
	WORKSHOP MOTOR								
	VENTILATING FANS								

All Conductors are of annealed copper conforming to British Standard Specification No. 7.
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

CAMPBELL & ISHERWOOD, LTD.

Electrical Engineers.

Date 26-3-25

COMPASSES.

Distance between electric generators or motors and standard compass 210

Distance between electric generators or motors and steering compass 200

The nearest cables to the compasses are as follows:—

A cable carrying 10 Ampères 15 feet from standard compass 15 feet from steering compass.

A cable carrying 98 Ampères 35 feet from standard compass 15 feet from steering compass.

A cable carrying 400 Ampères 45 feet from standard compass 45 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 course in the case of the standard compass, and NIL degrees on course in the case of the steering compass.

See other Sheet.

Builder's Signature.

Date

Is this installation a duplicate of a previous case. No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has been fitted on board under special survey. Tested under full working conditions and found satisfactory. The workmanship was found to be good and sound.

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

Total Capacity of Generators 195 Kilowatts

The amount of Fee ... £ 50 : 00 : 00
Entered on accompanying Report
Travelling Expenses (if any) £ : :
When applied for, 24/3/25
When received, 19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 APR 1925

Assigned Elec. Light.



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