

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 19 FEB 1926

Date of writing Report 18th Feb 1926 When handed in at Local Office 18th Feb 1926 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 27th Jan Last Survey 3rd Feb 1926
Reg. Book. (Number of Visits.....)

on the SS. DEMETERTON

Tons { Gross 5251
Net 3244

Built at Sunderland By whom built Hunt Bros & Co Yard No. 22 When built 1926

Owners Carlisle S.S. Co Ltd Port belonging to Newcastle

Electric Light Installation fitted by Messrs Clarke Chapman & Co Contract No. 22 When fitted 1926

RETAIN

System of Distribution Double wire system ✓

Pressure of supply for Lighting 110 ✓ volts, Heating - volts, Power - volts.

Direct or Alternating Current, Lighting Direct ✓ Power -

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 Yes ✓

Generators, do they comply with the requirements regarding overload Yes ✓, are they compound wound Yes ✓
are they over compounded 5 per cent. Yes ✓, 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 Yes ✓

Are all terminals accessible and clearly marked Yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited Yes ✓ Are the lubricating arrangements of the generators as per Rule Yes ✓

Position of Generators Engine room starboard side ✓

is the ventilation in way of the generators satisfactory Yes ✓, are they clear of all inflammable material Yes ✓

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 Yes ✓

are their axis of rotation fore and aft Yes ✓

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes ✓ are the prime movers and their respective generators in metallic contact Yes ✓

Main Switch Boards, where placed Engine room starboard side ✓

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 Yes ✓

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

are they protected from mechanical injury and damage from water, steam or oil Yes ✓, 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 Yes ✓, is all insulation of high dielectric strength and of permanently high insulation resistance Yes ✓

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 Yes ✓, and is the frame effectively earthed Yes ✓

Are the following fittings as per Rule, viz.: - spacing or shielding of live parts Yes ✓, accessibility of all parts Yes ✓, absence of fuses on back of board Yes ✓, proportion of omnibus bars Yes ✓, individual fuses to voltmeter, pilot or earth lamp Yes ✓, connections of switches Yes ✓

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

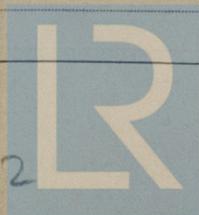
switch & fuses on dynamo main, single pole switch & double pole fuses on each outgoing circuit ✓

Instruments on main switchboard one ammeters one 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 Lower lamps coupled to earth through switches & fuses ✓

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

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



Insulation of Cables, state type of cables, single or twin *single* 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 *2.5* ✓

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 *-*

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 *Lead & Armoured cables in Engine room, Armoured & lead covered cables clipped to underside of deck in cargo spaces* ✓

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 *none made* ✓

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* ✓

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 *Yes* ✓

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *none fitted* ✓

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 led *-*

where are the controlling switches situated *-*

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

Arc 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 *-*, are the coils self-contained and readily removable for replacement *-*

are the brushes, brush holders, terminals and lubricating arrangements as per Rule *-*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *-*

are they protected from mechanical injury and damage from water, steam or oil *-*, are their axis of rotation fore and aft *-*

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 *-*, 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 *-*

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 ...	1.	8	110	72	350	single cylinder		
AUXILIARY ...						steam engine		
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.				
1.	MAIN GENERATOR...	2	.06500	19	.064	72	24	Pure rubber	Lead covered
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
2.	ENGINE ROOM ...	2	.00701	7	.036	13.2	48	"	Lead & Armoured
	BOILER ROOM ...								
3.	Saloon & Ward	2	.01046	7	.044	19.	60	"	Armoured & Braided
4.	Engine & aft	2	.01046	7	.044	12.	60	"	"
5.	WIRELESS ...	2	.01462	7	.052	25	180	Pure rubber	Armoured & Braided
	SEARCHLIGHT								
6.	MASTHEAD LIGHT...	2	.00152	1	.044	1.02	220	"	In iron pipes
	SIDE LIGHTS ...	2	.00152	1	.044	1.02	40	"	Lead covered
	COMPASS LIGHTS ...	2	.00152	1	.044	.51	12	"	"
10.	STEER POPE LIGHTS ...	2	.00152	1	.044	1.02	260	"	Armoured & Braided
10.	CARGO LIGHTS ...	2	.00455	168	.38	2.5	100	"	Braided & Compounded
	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 ...								
	WINCHES, FORWARD ...								
	WINCHES, AFT ...								
	STEERING GEAR ...								
	WORKSHOP MOTOR ...								
	VENTILATING FANS ...								

W383-0191 2/2

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 for Clarke, Chapman & Co., Ltd.

W. G. Taylor Director. Electrical Engineers.

Date Feb. 10. 1926.

COMPASSES.

Distance between electric generators or motors and standard compass 106 ft ✓

Distance between electric generators or motors and steering compass 100 " ✓

The nearest cables to the compasses are as follows:—

A cable carrying .5 Ampères 12 feet from standard compass 6 feet from steering compass. ✓

A cable carrying .5 Ampères 6 feet from standard compass 12 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. 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 all ✓ course in the case of the standard compass, and nil ✓ degrees on all ✓ course in the case of the steering compass. *J. Wilson*

FOR SHORT BROTHERS, LIMITED.

J. Wilson

Builder's Signature.

Date 15/2/1926

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.) The installation has been

satisfactorily fitted in the vessel, tested and found good.

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

J. Wilson
27/2/26

Total Capacity of Generators 8. Kilowatts

The amount of Fee ... £ 8 :-

Travelling Expenses (if any) £ :

When applied for, 5/2/26
 When received, 25/2/26

George Anderson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

55,12,13.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)