

Rpt. 13.

REPORT ON ELECTRIC FITTINGS.

No. 16585

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report

19

When handed in at Local Office

21.1.

Port of

Received at London Office

WEST HARTLEPOOL

No. in Survey held at

West Hartlepool

Date, First Survey

26th Sept.

Last Survey

7th Dec.

1927

Reg. Book.

18689 on the SS. CITY OF CANBERRA

(Number of Visits.....12.....)

Built at

Liverpool

By whom built

Messrs J. Gray & Co. Yard No. 985

Tons

Gross 7070

Net 4550

When built

1924

Owners

Ellerman Lines Ltd (Hall Line Ltd)

Port belonging to

Liverpool

Electric Light Installation fitted by

Messrs Claude Chapman & Co.

Contract No. 985

When fitted

1927

System of Distribution

Double line system

Pressure of supply for Lighting

110

volts, Heating

Direct or Alternating Current, Lighting

Direct

volts, Power

volts.

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 rating

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

Yes

, is an adjustable regulating resistance fitted in series with each shunt field

Yes

Are all terminals accessible, clearly marked, and furnished with sockets

Yes

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

Yes

Position of Generators

In Engine room lower platform 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

Yes

are their axes of rotation fore and aft

Yes

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

Yes

their respective generators in metallic contact

Yes

are the prime movers and

Main Switch Boards, where placed

Engine Room near dynamo

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

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

and

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

Yes

permanently high insulation resistance

Yes

, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

Yes

and is the frame effectively earthed

Yes

Are the fittings as per Rule regarding:— 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 switches & fuses on dynamo mains, single pole switches & double pole fuses in 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

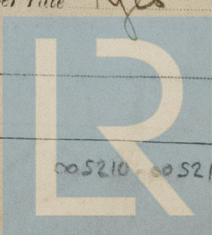
connected to earth through switches & fuses

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

Yes

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

Yes



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Cables: Single, twin, concentric, or multicore. Single are the cables insulated and protected as per Tables IV of the Rules. Yes
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3.6 Volts
Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.01 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 & Braided cables in engine room & cargo spaces clipped to underside of deck, lead covered in deck
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 VIII Yes

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

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 Partitions, 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 -

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

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

Secondary Batteries, are they constructed and fitted as per Rule -

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 no

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no

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 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

are they protected from mechanical injury and damage from water, steam or oil Yes, are their axes of rotation fore and aft yes, 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 and fitted 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 ...	1.	20	110	180	300	Large engine		
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. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
1.	MAIN GENERATOR...	2.	.1964	37	.083	180	40	Pure rubber	Lead covered
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
2.	ENGINE ROOM	2.	.0224	7	.064	10.6	60	" "	Lead Armoured & Braided
	BOILER ROOM								
	ACCOMMODATION								
3.	Engine room accommodation	2.	.0146	27	.052	21.	180	" "	" "
4.	Salon accommodation	2.	.0146	27	.052	16.9	280	" "	" "
5.	Crew etc	2.	.0090	7	.036	5.6	350	" "	" "
6.	WIRELESS	2.	.0070	7	.036	25	128	Pure rubber	Lead Armoured & Braided
	SEARCHLIGHT								
7.	MASTHEAD LIGHT	2.	.0019	3	.029	.9	224	" "	In run hoses
8.	SIDE LIGHTS	2.	.0019	3	.029	.9	60	" "	L.A.B Braided
9.	COMPASS LIGHTS	2.	.0019	3	.029	.5	12	" "	Lead covered
10.	STEERING LIGHTS	2.	.0019	3	.029	.9	420	" "	L.A.B Braided
11.	CARGO LIGHTS	2.	.0045	8	.038	1.9	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. Ampères.	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								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS								
12.	Refrigerating motor	1.	.0224	7	.064	30	80	Pure rubber	Lead Armoured & Braided

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. Taylor Director

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass 112 ft

Distance between electric generators or motors and steering compass 106 "

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 nie degrees on all course in the case of the standard

compass, and nie degrees on all course in the case of the steering compass.

For William Gray & Co., Limited.

Wm. S. Simpson

Builder's Signature.

Date

General Manager.

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

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

This installation has been fitted under survey.
The materials and workmanship are good.
On completion it was tried under full
working conditions and found satisfactory.

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

W.D.
8/2/28.

Total Capacity of Generators 20 Kilowatts.

The amount of Fee ... £ 17 : 10 :
When applied for, 19.12.27
Travelling Expenses (if any) £ : :
When received, 11.1.28

R.D. Shilston & A. Daintith
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec Light

1m.127.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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