

TUE. 2 OCT. 1923

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 20852.

Port of **NEWPORT MON.** Date of First Survey **29.6.21** Date of Last Survey **28.9.23** No. of Visits **8**
 No. in Reg. Book on the **Iron or Steel** **S/S (375) Cyntheria** belonging to **London**
 Built at **Chesham** By whom **The Monmouth S.S. Co** When built
 Owners **Harris & Owen Ltd** Owners' Address **London**
 Yard No. **375** Electric Light Installation fitted by **Telford Guir & Mackay Ltd** When fitted **1921**

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Engine **open type vertical, single cylinder, double acting, direct coupled to open protected type dynamo compound wound multipole**
 Capacity of Dynamo **80** Amperes at **100** Volts, whether continuous or alternating current **continuous**
 Where is Dynamo fixed **On starting platform** Whether single or double wire system is used **Double**
 Position of Main Switch Board **Beside dynamo** having switches to groups of **5 circuits** of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each **no auxiliary switchboards**

If fuses are fitted on main switch board to the cables of main circuit **yes** and on each auxiliary switch board to the cables of auxiliary circuits **—** and at each position where a cable is branched or reduced in size **none** and to each lamp circuit **yes**

If vessel is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits **yes**
 Are the fuses of non-oxidizable metal **yes** and constructed to fuse at an excess of **50** per cent over the normal current

Are all fuses fitted in easily accessible positions **yes** Are the fuses of standard dimensions **yes** If wire fuses are used are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit **yes**

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases **yes, marble & Porcelain**
 Total number of lights provided for **108** arranged in the following groups:—

A navigation	5 lights each of	32	candle power requiring a total current of	5.00	Amperes
B accommodation	60 lights each of	30	candle power requiring a total current of	18.00	Amperes
C Crew R.	23 lights each of	30	candle power requiring a total current of	6.90	Amperes
D Engines	20 lights each of	30	candle power requiring a total current of	6.00	Amperes
E Wireless	✓ lights each of	—	candle power requiring a total current of	✓	Amperes
2 Mast head lights with	1 lamp each of	32	candle power requiring a total current of	✓	Amperes
2 Side lights with	1 lamp each of	32	candle power requiring a total current of	✓	Amperes
4 Cargo lights of		96	candle power, whether incandescent or arc lights	✓	Amperes

If arc lights, what protection is provided against fire, sparks, &c. **—**

Where are the switches controlling the masthead and side lights placed **In Chart Room on Bridge.**

DESCRIPTION OF CABLES.

Main cable carrying	80 Amperes, comprised of	19 wires, each	0.072 S.W.G. diameter,	0.0750 square inches total sectional area
Branch cables carrying	5 Amperes, comprised of	7 wires, each	0.036 S.W.G. diameter,	0.007 square inches total sectional area
Branch cables carrying	18 Amperes, comprised of	7 wires, each	0.064 S.W.G. diameter,	0.022 square inches total sectional area
Leads to lamps carrying	2 Amperes, comprised of	3 wires, each	0.036 S.W.G. diameter,	0.003 square inches total sectional area
Cargo light cables carrying	3 Amperes, comprised of	3 wires, each	0.036 S.W.G. diameter,	0.003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All cables are **V.I.R insulated and protected by lead sheathing, tubing or armouring of steel wires**

Joints in cables, how made, insulated, and protected **no joints**

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances **—** Are all joints in accessible positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage

Are there any joints in or branches from the cable leading from dynamo to main switch board **no**

How are the cables led through the ship, and how protected **Cables are led through ship on deck and are protected by steel tubing.**

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible yes

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead sheathed and steel tubes

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead sheathing

What special protection has been provided for the cables near boiler casings Armouring & braiding

What special protection has been provided for the cables in engine room Armouring and braiding

How are cables carried through beams Lead covered, in accommodation through bulkheads, &c. W.T. glands.

How are cables carried through decks Watertight Deck tubes

Are any cables run through coal bunkers no or cargo spaces no or spaces which may be used for carrying cargo, stores, or baggage no

If so, how are they protected —

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no

If so, how are the lamp fittings and cable terminals specially protected —

Where are the main switches and fuses for these lights fitted —

If in the spaces, how are they specially protected —

Are any switches or fuses fitted in bunkers no

Cargo light cables, whether portable or permanently fixed Portable How fixed —

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel —

How are the returns from the lamps connected to the hull —

Are all the joints with the hull in accessible positions —

Is the installation supplied with a voltmeter yes and with an amperemeter yes, fixed on Switchboard

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion no

How are the lamps specially protected in places liable to the accumulation of vapour or gas Gas tight fittings in Pump room.

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

T. J. MacKay Electrical Engineers

Electrical Engineers

Date 20/3/22.

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	Ampere	feet from standard compass	feet from steering compass
A cable carrying	Ampere	feet from standard compass	feet from steering compass
A cable carrying	Ampere	feet from standard compass	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

The maximum deviation due to electric currents, etc., was found to be

standard compass and

degrees on

course in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

This electric light installation has been fitted in accordance with Rules & on trials gave satisfactory results

For £8.0.0 applied for 29.9.23.

Paid 20/2/24

John B. Common

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.