

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11066

Port of Southampton Date of First Survey 28<sup>th</sup> July Date of Last Survey 27<sup>th</sup> Dec. 1920 No. of Visits 3  
 No. in Reg. Book on the Iron or Steel Oil Tank Vessel "Polla" Port belonging to London  
 Built at Cowes, Isle of Wight By whom J.S. White & Co. Ltd When built 1921  
 Owners British Oil Bunkering Co. Ltd Owners' Address \_\_\_\_\_  
 Yard No. 1558 Electric Light Installation fitted by J.S. White & Co. Ltd When fitted 1921

**DESCRIPTION OF DYNAMO, ENGINE, ETC.**

Open type, steam, reciprocating engine direct coupled to compound wound dynamo of 2.64 KW. running at 400 R.P.M.

Capacity of Dynamo 24 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed In train motor room Whether single or double wire system is used double

Position of Main Switch Board near dynamo having switches to groups A to C of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each nil.

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 yes and at each position where a cable is branched or reduced in size yes 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 700 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

Total number of lights provided for 41 arranged in the following groups :-

A	Machinery Spaces <sup>21</sup> lights each of	16	candle power requiring a total current of	10.5	Amperes
B	Navigation <sup>4</sup> lights each of	32	candle power requiring a total current of	4	Amperes
C	Accommodation &c <sup>16</sup> lights each of	16	candle power requiring a total current of	8	Amperes
D	- lights each of	-	candle power requiring a total current of	-	Amperes
E	- lights each of	-	candle power requiring a total current of	-	Amperes
1	Mast head light with <sup>1</sup> double lamps each of	32	candle power requiring a total current of	1	Amperes
2	Side lights with <sup>1</sup> double lamps, each of	32	candle power requiring a total current of	2	Amperes
2	Cargo lights of <sup>6</sup> lamps, each of 16		candle power, whether incandescent or arc lights		incandescent

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

Where are the switches controlling the masthead and side lights placed In Wheelhouse with indicator box

**DESCRIPTION OF CABLES.**

Main cable carrying	22.5 Amperes, comprised of	19 wires, each	20 S.W.G. diameter,	0.19 square inches total sectional area
Branch cables carrying	8 Amperes, comprised of	7 wires, each	0.29 S.W.G. diameter,	0.0045 square inches total sectional area
Branch cables carrying	10 Amperes, comprised of	3 wires, each	0.36 S.W.G. diameter,	0.0030 square inches total sectional area
Leads to lamps carrying	2 Amperes, comprised of	1 wires, each	0.44 S.W.G. diameter,	0.0015 square inches total sectional area
Cargo light cables carrying	3 Amperes, comprised of	40 wires, each	0.076 S.W.G. diameter,	0.017 square inches total sectional area

**DESCRIPTION OF INSULATION, PROTECTION, ETC.**

In Machinery Spaces & on deck - cables V.I.R. insulated, lead covered, taped over lead & run in galvanized steel tubes.

In accommodation spaces - cables V.I.R. insulated, lead covered, dipped up.

Joints in cables, how made, insulated, and protected none

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 run in galvanized steel tubes.

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**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 *run in galvanized steel tubes & shielded where necessary.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Ditto.*

What special protection has been provided for the cables near boiler casings *Ditto.*

What special protection has been provided for the cables in engine room *Ditto.*

How are cables carried through beams *lead bushed holes* through bulkheads, &c. *W.T. Glands & pipes.*

How are cables carried through decks *by means of steel 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 *W.T. & Gaslight fitted with C.I. Guards.*

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 *2500* 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.

For J. SAMUEL WHITE & COMPANY, Ltd.

Electrical Engineers Date

**COMPASSES.**

*W. Murray* Managing Director.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass *30 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>4</i>	Amperes	-	feet from standard compass	<i>4</i>	feet from steering compass
A cable carrying	<i>1</i>	Amperes	-	feet from standard compass	<i>4</i>	feet from steering compass
A cable carrying	<i>1</i>	Amperes	-	feet from standard compass	<i>4</i>	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 \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the

standard compass and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

For J. SAMUEL WHITE & COMPANY, Ltd.

Builder's Signature. Date

**GENERAL REMARKS.**

*The Electrical Installation has been fitted in accordance with the rule requirements, the same has been tried under working conditions and found satisfactory.*

FEE = £5-0-0

*sent 20/10/21 pd. 2-12-21/11/21*

*Elec. Light. L.P. A.H. Boyle*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 4 NOV. 1921

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

2m. 11.11.21—Transfer.



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