

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11066

Port of *Santhampton* Date of First Survey *28 July* Date of Last Survey *27 Dec. 1921* 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 *100* 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 <i>Machinery Spaces</i> <i>21</i> lights each of <i>16</i> candle power requiring a total current of <i>10.5</i> Amperes
B <i>Navigation</i> <i>4</i> lights each of <i>32</i> candle power requiring a total current of <i>4</i> Amperes
C <i>Accommodation &amp;c</i> <i>16</i> lights each of <i>16</i> candle power requiring a total current of <i>8</i> Amperes
D <i>-</i> lights each of <i>-</i> candle power requiring a total current of <i>-</i> Amperes
E <i>-</i> lights each of <i>-</i> candle power requiring a total current of <i>-</i> Amperes
<i>1</i> Mast head light with <i>1 double lamp</i> each of <i>32</i> candle power requiring a total current of <i>1</i> Amperes
<i>2</i> Side lights with <i>1 double lamp</i> each of <i>32</i> candle power requiring a total current of <i>2</i> Amperes
<i>2</i> Cargo lights of <i>6 lamps</i> , each of <i>16</i> candle power, whether incandescent or arc lights <i>incandescent</i>

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

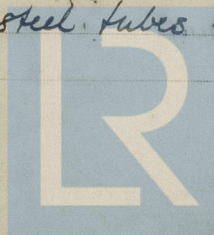
Joints in cables, how made, insulated, and protected *none*

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. Burney*

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	Amperes	feet from standard compass	feet from steering compass
4	-	4	4
1	-	4	4
1	-	4	4

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.

*W. Burney*

Managing Director.

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

Elec. Light. L.T.

*C.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.



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