

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4967

Port of Hong Kong Date of First Survey Feb. 28th Date of Last Survey May 5th. No. of Visits 5
 No. in on the ~~XXXX~~ Steel Sc. Sr. "KERAMIES" ex "WAR CORONET" belonging to Argostoli
 Reg. Book Built at Hong Kong By whom Taikoo Dockyard & Eng. Co. Ltd. When built 1920
 Owners N.E. Ambatielos ex The Shipping Controller Owners' Address Argostoli, Graece.
 Yard No. 181 Electric Light Installation fitted by Taikoo Dockyard & Eng. Co. Ltd. When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 10 K.W. continuous current generator direct coupled to a 7" dia. single cylinder engine with a 5" stroke built by Sunderland Forge Co.

Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Engine Room having switches to groups 5 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None

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 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 143 arranged in the following groups:—

<u>Aft Circuit</u>	<u>20</u> lights each of <u>16</u>	candle power requiring a total current of <u>8</u>	Amperes
<u>Midships</u>	<u>48</u> lights each of <u>16</u>	candle power requiring a total current of <u>19.2</u>	Amperes
<u>Navigation</u>	<u>8</u> lights each of <u>3-32 & 5-16</u>	candle power requiring a total current of <u>4.4</u>	Amperes
<u>Cargo</u>	<u>33</u> lights each of <u>16</u>	candle power requiring a total current of <u>13.2</u>	Amperes
<u>Engines</u>	<u>34</u> lights each of <u>16</u>	candle power requiring a total current of <u>13.6</u>	Amperes
<u>1</u> Mast head light with <u>1</u> lamps each of <u>32 (Carbon)</u>	candle power requiring a total current of <u>.8</u>	Amperes	
<u>2</u> Side light with <u>1</u> lamps each of <u>32 (Carbon)</u>	candle power requiring a total current of <u>1.6</u>	Amperes	
<u>5</u> Cargo lights of <u>6-16 (Carbon)</u>	candle power, whether incandescent or arc lights <u>Incandescent</u>		

If arc lights, what protection is provided against fire, sparks, &c. No Arc lamps on board ship

Where are the switches controlling the masthead and side lights placed Bridge Deck Wheel House

DESCRIPTION OF CABLES.

Main cable carrying <u>65</u> Amperes, comprised of <u>37</u> wires, each <u>16</u> S.W.G. diameter, <u>.1176</u> square inches total sectional area
Branch cables carrying <u>19.2</u> Amperes, comprised of <u>7</u> wires, each <u>16</u> S.W.G. diameter, <u>.02227</u> square inches total sectional area
Branch cables carrying <u>4.4</u> Amperes, comprised of <u>7</u> wires, each <u>20</u> S.W.G. diameter, <u>.007052</u> square inches total sectional area
Leads to lamps carrying <u>.8</u> Amperes, comprised of <u>1</u> wires, each <u>17</u> S.W.G. diameter, <u>.002463</u> square inches total sectional area
Cargo light cables carrying <u>2.4</u> Amperes, comprised of <u>108</u> wires, each <u>38</u> S.W.G. diameter, <u>.0032</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main cables twin vulcanised India rubber, wire armoured and braided clipped to deck, wires in piping where exposed to injury.

Joints in cables, how made, insulated, and protected No joints in cables all junctions made in junction boxes.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances Yes 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 Yes

Are there any joints in or branches from the cable leading from dynamo to main switch board None

How are the cables led through the ship, and how protected Lead covered wire in cabin main cables armoured and clipped to deck.



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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 **Lead covered wire**

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

What special protection has been provided for the cables near boiler casings **Cables in iron pipe**

What special protection has been provided for the cables in engine room **Iron pipe**

How are cables carried through beams **Through lead bushings** through bulkheads, &c. **Glands on bushings**

How are cables carried through decks **Iron pipe made watertight**

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

If so, how are they protected **Twin armoured wire clipped to deck.**

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage **Yes**

If so, how are the lamp fittings and cable terminals specially protected **Lamp fittings brass guards terminals C.I. box.**

Where are the main switches and fuses for these lights fitted **Engine room top.**

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 **Main Switch Board**

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 **-**

Are any switches, fuses, or joints of cables fitted in the pump room or companion **-**

How are the lamps specially protected in places liable to the accumulation of vapour or gas **-**

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 **900** 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass **192 feet**

Distance between dynamo or electric motors and steering compass **182 feet**

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
3.6	12	6	
19.2	26	20	
13.2	96	102	

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.

GENERAL REMARKS.

Installation tested on March 17th. 1920 with good result.

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

Committee's Minute

Surveyor to Lloyd's Register of Shipping.

FRI JUL 15 1921
TUE 4 OCT 1921

FRI MAR 23 1923
TUE OCT 23 1923
TUE 18 DEC 1923



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