

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 7301

Port of New York Date of First Survey 2nd July Date of Last Survey 14th July No. of Visits 4
 No. in Reg. Book 818 on the Iron or Steel S.S. "SENECA" Port belonging to London
 Built at Glasgow By whom Russell & Co When built 1901
 Owners Anglo American Oil Co Owners' Address _____
 Yard No. 226 Electric Light Installation fitted by Joe Bane New York U.S.A. When fitted 1908

DESCRIPTION OF DYNAMO, ENGINE, ETC.

General Electric Co's direct connected marine type generating set
 Single cylinder engine 5" cylinder - 4 1/2" stroke 550 Rev. per minute

Capacity of Dynamo 61 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Lower engine room platform starboard side

Position of Main Switch Board Lower engine room bulkhead having switches to groups for the control of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each A. Located in forecabin 4 switches. B. Located in Pantry forward mess house with 4 switches. C. Located in mess room after mess house with 4 switches. D. switches on main board control hall of lights

If cut outs 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 cessel is wired on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 115 arranged in the following groups:—

A	<u>23</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>11 1/2</u>	Amperes
B	<u>22</u>	lights each of	<u>4 - 16 - 32</u>	candle power requiring a total current of	<u>12 1/2</u>	Amperes
C	<u>15</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>7 1/2</u>	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
<u>2</u>	Mast head light with	<u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes
<u>2</u>	Side light with	<u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes
<u>16</u>	Cargo lights of	<u>4 - 16 cp lamp each</u>		candle power, whether incandescent or arc lights	<u>incandescent</u>	

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

DESCRIPTION OF CABLES.

Main cable carrying 61 Amperes, comprised of 19 wires, each #15 L.S.G. diameter, 0.0755 square inches total sectional area

Branch cables carrying 12 1/2 Amperes, comprised of 7 wires, each #16 L.S.G. diameter, 0.0225 square inches total sectional area

Branch cables carrying 7 1/2 Amperes, comprised of 7 wires, each #18 L.S.G. diameter, 0.0137 square inches total sectional area

Leads to lamps carrying 1/2 - 4 Amperes, comprised of 7 wires, each #19 L.S.G. diameter, 0.0088 square inches total sectional area

Cargo light cables carrying 2 Amperes, comprised of 30 wires, each #30 L.S.G. diameter, 0.0034 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires are insulated with India rubber and protected with two (2) Braids of watertight fibre

Joints in cables, how made, insulated, and protected Joints are spliced and soldered, insulated with rubber tape, protected with adhesive tape enclosed in a heavy cast iron box

Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 no

How are the cables led through the ship, and how protected in enamelled steel tubes



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 *installed in steel tubes made watertight with watertight outlet boxes and fixtures*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *installed in steel tubes*

What special protection has been provided for the cables near boiler casings *in steel tubes*

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

How are cables carried through beams *in steel tubes through bulkheads, &c. in steel tubes*

How are cables carried through decks *in steel tubes made watertight*

Are any cables run through coal bunkers *yes* or cargo spaces *yes* or spaces which may be used for carrying cargo, stores, or baggage *yes*

If so, how are they protected *in steel tubes*

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 cut outs for these lights fitted

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *portable studders from How fixed outlets on outside of deck*

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

VESSELS BUILT FOR CARRYING PETROLEUM.

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

Are any switches, cut outs, 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 installation is *supplied with a voltmeter and one (1) an amperemeter, fixed on main switch board*

The copper used is guaranteed to have a conductivity of *98* per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than *600* megohms per statute mile after 24 hours' immersion in seawater.

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.

Jos Bane + Leo Electrical Engineers Date *July 21st 08*
per M.C.A.

COMPASSES.

Distance between dynamo or electric motors and standard compass *100 feet*

Distance between dynamo or electric motors and steering compass *100 "*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>44</i> Amperes	<i>0'</i> feet from standard compass	<i>3'</i> feet from steering compass
A cable carrying	<i>6 1/2</i> Amperes	<i>6'</i> feet from standard compass	<i>6'</i> feet from steering compass
A cable carrying	<i>16</i> Amperes	<i>30'</i> feet from standard compass	<i>24</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.

Builder's Signature. Date

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules of the Society, in my opinion the vessel is eligible for record "Fitted with Electric Light" 8.07

See \$25.00 JUL 23 1908 J. M. Buchanan.
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

REPORT FORM No. 13.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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