

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3069

Port of PHILADELPHIA. Date of First Survey 27th Aug 1918 Date of Last Survey 3rd Dec 1918 No. of Visits 39
 No. in on the Iron or Steel 3/5 "SACCARAPPA" Port belonging to Philadelphia
 Reg. Book Built at Philadelphia By whom American International Corp When built 1918
 Owners United States Shipping Board Owners' Address
Emergency Fleet Corporation
 Yard No. 495 Electric Light Installation fitted by American International Corp When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2-15 K. W. GENERAL ELECTRIC GENERATORS COMPOUND WOUND 125 VOLT 2 WIRE WITH VERTICAL MARINE TYPE STEAM ENGINES 80 # TO 125 # STEAM PRESSURE.

Capacity of Dynamo 120 Amperes at 125 Volts, whether continuous or alternating current CONTINUOUS

Where is Dynamo fixed DYNAMO FLAT STR'ED SIDE ENG. RM Whether single or double wire system is used DOUBLE

Position of Main Switch Board ENGINE RM. DYNAMO FLAT having switches to groups 8 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each PANEL A-FORECASTLE 4-CIR; PANEL B OFFICER'S QTRS. 9; C. STR'ED BRIDGE DK.-5; D PORT BRIDGE DECK-6; F-POOP 5 CIR; PANEL G. ENGINE AND BOILER ROOM 8; H. PILOT HOUSE 1 SEARCH LIGHT; RADIO EMERGENCY 2

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 125 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 237 arranged in the following groups:—

WIRELESS		50 WATT		75 WATT		45	
A	A	16	lights each of	"	"	14.4	Amperes
B	B	32	lights each of	"	"	10.4	Amperes
C	C	23	lights each of	"	"	16.2	Amperes
D	D	36	lights each of	"	"	6.8	Amperes
E	E	15	lights each of	"	"	15.8	Amperes
F	F	35	lights each of	"	"	26.1	Amperes
G	G	58	lights each of	25-50-75-100	"		Amperes
2	Mast head light with	EL	lamps each of	50 WATT	candle power requiring a total current of	0.9	Amperes
2	Side light with	"	lamps each of	"	candle power requiring a total current of	0.9	Amperes
8	Cargo lights of	50 WATT & 100	"	"	candle power, whether incandescent or arc lights	3.6	

If arc lights, what protection is provided against fire, sparks, &c. USED ONLY ON SEARCH LIGHT

Where are the switches controlling the masthead and side lights placed PANEL H. WHEEL HOUSE

DESCRIPTION OF CABLES.

STRANDED		B & S GAGE	
Main cable carrying	120 Amperes, comprised of #00 wires, each	S.W.G. diameter,	0.11 square inches total sectional area
Branch cables carrying	35 Amperes, comprised of #6 wires, each	S.W.G. diameter,	0.021 square inches total sectional area
Branch cables carrying	60 Amperes, comprised of #2 wires, each	S.W.G. diameter,	0.049 square inches total sectional area
Leads to lamps carrying	25 Amperes, comprised of #10 wires, each	S.W.G. diameter,	0.0081 square inches total sectional area
Cargo light cables carrying	20 Amperes, comprised of #12 wires, each	S.W.G. diameter,	0.005 square inches total sectional area
	15 Amperes, comprised of #14 wires, each	S.W.G. diameter,	0.0033 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

ALL LIGHTING WIRES IN GALVANIZED CONDUIT 1/2" TO 1 1/2" DIA.

Joints in cables, how made, insulated, and protected IN BOXES AT CONDUIT JUNCTION

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 NO

How are the cables led through the ship, and how protected CONDUIT



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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

IN WATER TIGHT CONDUIT WITH LOCK NUTS AND WASHERS AT BULKHEAD.

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

What special protection has been provided for the cables near boiler casings **IN CONDUIT**

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

How are cables carried through beams **STEEL CONDUIT THROUGH DRILLED HOLES** through bulkheads, &c.

How are cables carried through decks **" " WITH LOCK NUTS AND WASHERS**

Are any cables run through coal bunkers **NO** or cargo spaces **YES** or spaces which may be used for carrying cargo, stores, or baggage **IN STEEL CONDUIT**

If so, how are they protected **IN STEEL CONDUIT**

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 **YES**

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 **NOT OIL CARRIER**

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 **600** 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.

L.D. Murphy

Electrical Engineers

Date **NOV. 14, 1918**

COMPASSES.

Distance between dynamo or electric motors and standard compass **100 FT.**

Distance between dynamo or electric motors and steering compass **110 "**

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
50	6	5	5
4	6	5	5
2	4	4	4

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

The maximum deviation due to electric currents, etc., was found to be **0** degrees on **0** course in the case of the standard compass and **0** degrees on **0** course in the case of the steering compass.

G. J. James

Builder's Signature.

Date **NOV. 14, 1918**

GENERAL REMARKS.

This electric lighting installation has been well fitted and proved satisfactory on trial.

It is submitted that this vessel is eligible for THE RECORD. ELEC. LIGHT

J. Blalock.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

*4K
30/1/19
Elec. Lt.*



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