

Rpt. 13.

REC'D NEW YORK *May 5-1919*

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3229

Port of *Philadelphia* Date of First Survey *3/10/18* Date of Last Survey *2/13/19* No. of Visits *2*
 No. in Reg. Book on the ~~Iron~~ or Steel *1/2 "SCHODACK"* Port belonging to *Philadelphia*
 Built at *Philadelphia Pa.* By whom *American International Corp.* When built *1919*
 Owners *United States Shipping Board* Owners' Address *Washington D.C.*
 Yard No. *512* Electric Light Installation fitted by *American International Corp.* When fitted *1919*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Generators-2-15 K.W. Gen. Elec. Co., 125 volts, driven by vertical marine type engines
 60-125 lb. steam pressure

Capacity of Dynamo *2* at *120* Amperes at *125* each Volts, whether continuous or alternating current *continuous*

Where is Dynamo fixed *Engine room St'rbd on Dynamo flt* Whether single or double wire system is used *double wire*

Position of Main Switch Board *Engine rm dynamo Flat* having switches to groups *7* panels of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *Panel G-Engine & Boiler Room 8-cir; Panel D*

Bridge deck port-6 cir; Panel C-Bridge deck starboard 4 cir; Panel B-Officers Qtrs-9 cir

Panel A-Forecastle-4 cir; Panel F-POop-6 cir; Panel H- Pilot House- 6 cir

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-oxidisable 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 *All Cartridge fuses*

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases *yes*

Total number of lights provided for *245* arranged in the following groups :-

A Forecastle	13 lights each of 25 to 200 Watts	candle power requiring a total current of	8.0 Amperes
B Officers Qtrs	61 lights each of 10 " 200 "	candle power requiring a total current of	28.7 Amperes
C St'dbd Qtrs	25 lights each of 25 to 200 "	candle power requiring a total current of	12.5 Amperes
D Port Qtrs	43 lights each of 25 to 200 "	candle power requiring a total current of	20.5 Amperes
F-Poop "	35 " " 10 to 200 "		17.7
E G-Engine & B	62 lights each of 25 to 100 "	candle power requiring a total current of	33.0 Amperes
H-Pilot House	3 " " 50 to 4000 "	(Includes searchlight)	37.3
1 Must head light with	1 lamps each of 50 Watt	candle power requiring a total current of	0.5 Amperes
2 Side light with	1 lamps each of " "	candle power requiring a total current of	0.9 Amperes
13 Cargo lights of	200 watts	candle power, whether incandescent or arc lights	incandescent

If arc lights, what protection is provided against fire, sparks, &c. *Arc for searchlight only with enclosed carbons*

Where are the switches controlling the masthead and side lights placed *Panel H Wheel House*

DESCRIPTION OF CABLES.

Main cable carrying	120 Amperes, comprised of	Stranded, each #00	B&S S.W.G. diameter, 0.104	square inches total sectional area
Branch cables carrying	50 Amperes, comprised of	" wires, each #2	S.W.G. diameter, 0.052	square inches total sectional area
	35 Amperes, comprised of	" wires, each #6	0.021	
Branch cables carrying	22 Amperes, comprised of	" wires, each #10	S.W.G. diameter, 0.0082	square inches total sectional area
	18 " " Solid	#12	0.0051	
Leads to lamps carrying	10 Amperes, comprised of	" wires, each #14	S.W.G. diameter, 0.0032	square inches total sectional area
Cargo light cables carrying	10 Amperes, comprised of	" wires, each #12	S.W.G. diameter, 0.0051	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All lighting wires in galvanized conduit 1/4 in. to 1 1/2 in dia.

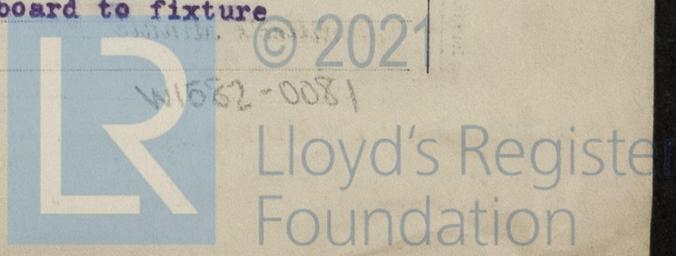
#00, #2 #6 Rubber covered and braid code wire.
 #10, #12, #14 " " single braid code wire

Joints in cables, how made, insulated, and protected *In boxes at conduit (Use Benjamin C.I. Boxes) 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 *Galvanized conduit from switchboard to fixture*



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 locknuts and washers at bulkheads

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat In galvanized iron conduit

What special protection has been provided for the cables near boiler casings In galvanized iron conduit

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

How are cables carried through beams Steel conduit in drilled holes through bulkheads, &c. with locknuts and washers

How are cables carried through decks " " with locknuts & 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 with guards

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 not in cargo space

If so, how are the lamp fittings and cable terminals specially protected no lamps in cargo space no coal bunkers

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 " " " " " " " "

Cargo light cables, whether portable or permanently fixed Portable How fixed not fixed

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel double wire system used

How are the returns from the lamps connected to the hull double wire system no grounds

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 not oil carrier

How are the lamps specially protected in places liable to the accumulation of vapour or gas not oil carrier

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. Murphy

Electrical Engineers

Date Mar 28, 1919.

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 ft.

Distance between dynamo or electric motors and steering compass 110 ft.

The nearest cables to the compasses are as follows:—

A cable carrying <u>40</u> Amperes	<u>6</u> feet from standard compass	<u>5</u> feet from steering compass
A cable carrying <u>4</u> Amperes	<u>6</u> feet from standard compass	<u>5</u> feet from steering compass
A cable carrying <u>2</u> Amperes	<u>4</u> feet from standard compass	<u>4</u> feet from steering compass

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. Jamie

Builder's Signature.

Date 1919.

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.

Rel. 30.5.19.

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

Committee's Minute Elec. Lt. New York MAY -7 1919

