

MON. 3 DEC 1923

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of PHILADELPHIA Date of First Survey AUG. 22<sup>nd</sup> 1923 Date of Last Survey NOV. 1<sup>st</sup> 23 No. of Visits 19.

No. in on the Iron or Steel MOTORSHIP "SEEKONK" Port belonging to PHILADELPHIA, PA.  
 Reg. Book 32832 Built at HOG ISLAND, PA. By whom AMER. INTERNAT. S. S. CO. P. When built 1919.

Owners THE WM. CRAMP & SONS SKEB. CO. Owners' Address PHILADELPHIA, PA.

Yard No. — Electric Light Installation fitted by THE WM. CRAMP & SONS SKEB. CO. When fitted 1923.

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

THREE 65 K.W. 220 VOLT GENERATING SETS DIRECT CONNECTED TO THREE DIESEL OIL ENGINES.

Capacity of Dynamo 886 Amperes at 220 Volts, whether continuous or alternating current CONTINUOUS

Where is Dynamo fixed ENGINE ROOM, STARD. SIDE Whether single or double wire system is used DOUBLE.

Position of Main Switch Board ENGINE ROOM, FORD. having switches to groups 26 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each ONE 6 BRANCH FORECASTLE, ONE 12 BRANCH OFFICERS' SALOON, ONE 6 BRANCH BRIDGE DK. FR. 98 PORT, ONE 6 BRANCH BRIDGE DK. FR. 98 STARD. ONE 6 BRANCH UPPER DK AFT, ONE 8 BRANCH IN ENGINE ROOM.

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 NONE USED.

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases YES.

Total number of lights provided for 222 arranged in the following groups:—

A	1-18" ARC SEARCHLIGHTS	each of	100 WATTS	candle power requiring a total current of	35	Amperes
B	9	lights each of	100 "	candle power requiring a total current of	4	Amperes
C	182	lights each of	50 "	candle power requiring a total current of	41	Amperes
D	27	lights each of	25 "	candle power requiring a total current of	8	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	1 Mast head light with	2	lamps each of 50 "	candle power requiring a total current of	25	Amperes
	2 Side light with	2	lamps each of 50 "	candle power requiring a total current of	5	Amperes
	12 Cargo lights of		200 WATTS.	candle power, whether incandescent or arc lights	INCANDESCENT.	

If arc lights, what protection is provided against fire, sparks, &c. NO ARC LIGHTS INSTALLED.

Where are the switches controlling the masthead and side lights placed TELL-TALE PANEL IN PILOT HOUSE

## DESCRIPTION OF CABLES.

Main cable carrying	295	Amperes, comprised of	61	wires, each	12	S.W.G. diameter,	.5000	square inches total sectional area
Branch cables carrying	93	Amperes, comprised of	19	wires, each	14	S.W.G. diameter,	.0740	square inches total sectional area
Branch cables carrying	15	Amperes, comprised of	3	wires, each	18	S.W.G. diameter,	.0053	square inches total sectional area
Leads to lamps carrying	6	OR LESS	1	wires, each	14	S.W.G. diameter,	.00325	square inches total sectional area
Cargo light cables carrying	6	OR LESS	1	wires, each	14	S.W.G. diameter,	.00325	square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

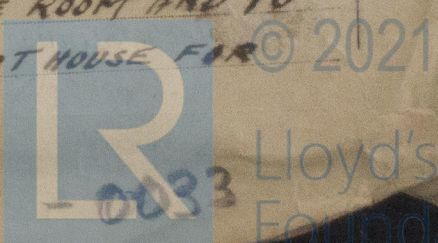
IN ENGINE ROOM ALL CABLES ARE PROTECTED BY A COVERING OF LEAD & STEEL ARMOUR, OUTSIDE OF MACHINERY SPACE & COLD STORAGE ROOMS, ALL WIRES ARE TINNED COPPER, RUBBER COVERED, DOUBLE BRAIDED & RUN IN GALVANIZED STEEL CONDUIT.

Joints in cables, how made, insulated, and protected GOOD MECHANICAL JOINTS, THOROUGHLY SOLDERED, INSULATED WITH RUBBER & FRICTION TAPE, & PROTECTED IN WATER-TIGHT 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 NO.

How are the cables led through the ship, and how protected LEAD & ARMoured CABLE IN ENGINE ROOM AND TO DECK AUXILIARIES, IN GALVANIZED STEEL CONDUIT, BRASS CONDUIT IN PILOT HOUSE FOR LIGHTING CIRCUITS.



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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 CONDUIT AND LEAD ARMOURED CABLES.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat CONDUIT & LEAD ARMOURED CABLES.

What special protection has been provided for the cables near boiler casings NO CABLES NEAR BOILER CASINGS.

What special protection has been provided for the cables in engine room LEAD ARMOURED CABLES & W.T. BOXES.

How are cables carried through beams LEAD BUSHINGS. through bulkheads, &c. CONDUIT & W.T. STUFFING BOXES.

How are cables carried through decks CONDUIT & W.T. STUFFING BOXES.

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 IN GALVANIZED STEEL CONDUIT, & LEAD ARMOURED WIRES.

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

If so, how are the lamp fittings and cable terminals specially protected —

Where are the main switches and fuses for these lights fitted SWITCHBOARD.

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 —

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 —

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 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.

*G. A. Purcell*

Electrical Engineers

Date 10-29-23

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 125 FT.

Distance between dynamo or electric motors and steering compass 125 FT.

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	CONNECTED TO	feet from standard compass	feet from steering compass
<u>1/10</u>			<u>4</u>	
A cable carrying <u>75/110</u>	<u>4</u>		<u>4</u>	
A cable carrying <u>3</u>	<u>8</u>		<u>8</u>	

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.

*Wm. Gramp & Sons, S. & E. B. Co. (Eng.) W.A.S.* Builder's Signature. Date Oct. 30<sup>th</sup> 1923

**GENERAL REMARKS.**

THE INSTALLATION IS FITTED ON BOARD IN A SATISFACTORY MANNER. IT WAS TRIED WITH ALL LIGHTS ON AND ALL POWER ON IN ENGINE ROOM AND ON DECK AND WAS FOUND SATISFACTORY.

FEE \$370.00

Paid 2/15/28

*Frederick J. Buchanan*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York NOV 20 1923

Elect Light



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