

Rpt. 13.

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2952

Port of Philadelphia Date of First Survey 2nd July 1918 Date of Last Survey 16th Aug 1918 No. of Visits 10
No. in on the Iron or Steel S.S. "Winding Gulf" Port belonging to Camden N. J.
Reg. Book Built at Camden, New Jersey, U.S.A. By whom New York Ship Corp. When built 1918
Owners Emergence of Steel Corporation Owners' Address Washington D. C.
Yard No. 192 Electric Light Installation fitted by New York Ship Corp. When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two 12 1/2 KW. 110 Volt Generators - Direct connected to Vertical Marine Engines - Built by B.F. Sturtevant Co. Boston Mass. U.S.A.

Capacity of Dynamo 113.6 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine Rm. Plat. Stbd. Whether single or double wire system is used Double

Position of Main Switch Board Engine Rm. Plat. Stbd. having switches to groups 9 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each

"A" Main Deck - Amid. Passage (6) - "B" Bridge Deck - Amid. Passage Stbd. (6)

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 Yes

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

Total number of lights provided for 197 arranged in the following groups:—

A	44	lights each of	40 Watt	candle power requiring a total current of	16.28	Amperes	
A'	65	lights each of	40 "	candle power requiring a total current of	29.05	Amperes	
B	51	lights each of	40 "	candle power requiring a total current of	18.87	Amperes	
B'	13	lights each of	40 "	candle power requiring a total current of	9.81	Amperes	
C	13	lights each of	40 "	candle power requiring a total current of	9.81	Amperes	
D	11	lights each of	40 "	candle power requiring a total current of	9.07	Amperes	
E	Searchlight	lights each of		candle power requiring a total current of	35	Amperes	
1	Mast head light with	2	lamps each of	16	candle power requiring a total current of	1	Amperes
1	Side light with	2	lamps each of	16	candle power requiring a total current of	1	Amperes
4	Cargo lights of	64		candle power, whether incandescent or arc lights	Incandescent		

If arc lights, what protection is provided against fire, sparks, &c. No Arc Lamps

Where are the switches controlling the masthead and side lights placed Tell Tale Board - Pilot House

DESCRIPTION OF CABLES.

Main cable carrying	113.6	Amperes, comprised of	7/7	wires, each	.199	B&S S.W.G. diameter,	.1191	square inches total sectional area
Branch cables carrying	35	Amperes, comprised of	7/19	wires, each	.069	B&S S.W.G. diameter,	.0229	square inches total sectional area
Branch cables carrying	29.05	Amperes, comprised of	7/18	wires, each	.090	B&S S.W.G. diameter,	.0091	square inches total sectional area
Leads to lamps carrying	.5	Amperes, comprised of	7/22	wires, each	.025	B&S S.W.G. diameter,	.0035	square inches total sectional area
Cargo light cables carrying	2	Amperes, comprised of	7/22	wires, each	.025	B&S S.W.G. diameter,	.0035	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead & Armored Cable Throughout

Joints in cables, how made, insulated, and protected Good Mech. Joint, Soldered, Taped and Painted with insulating compound.

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 & Armored Cable



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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 & Armored Cable

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead & Armored Cable

What special protection has been provided for the cables near boiler casings Lead & Armored Cable

What special protection has been provided for the cables in engine room Lead & Armored Cable

How are cables carried through beams Lead Bushings through bulkheads, &c. Stuffing Tubes

How are cables carried through decks In Conduit

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 Lead & Armored Cable

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 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.

Arthur Parker Electrical Engineers Date 16th Aug. 1918

COMPASSES.

Distance between dynamo or electric motors and standard compass Approx. 175'

Distance between dynamo or electric motors and steering compass Approx. 150'

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>.5</u>	<u>3</u>	<u>3</u>	
A cable carrying	Amperes	feet from standard compass	feet from steering compass
A cable carrying	Amperes	feet from standard compass	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 nil degrees on all course in the case of the standard compass and nil degrees on all course in the case of the steering compass.

H. A. Inagon Builder's Signature. Date 16th Aug. 1918

GENERAL REMARKS.

The installation has been well fitted, and proved satisfactory on trial.

It is submitted that this vessel is eligible for

THE RECORD. ELEC. LIGHT

9-10-18

A. T. Thomas

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

Elec. Light

New York SEP 10 1918

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.