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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2484

Port of Philadelphia Date of First Survey 21st Feb 1916 Date of Last Survey 20th Dec 1916 No. of Visits 6
 on the Iron or Steel S.S. "Wm Rockefeller" Port belonging to Bayonne, N.J.
 Built at Philadelphia By whom The Wm. Cramp & Co. Ship Bldg. Co. When built 1916
 Owners Standard Oil Co. Owners' Address New York
 Card No. 432 Electric Light Installation fitted by The Wm. Cramp & Co. Ship Bldg. Co. When fitted 1916

DESCRIPTION OF DYNAMO, ENGINE, ETC. S.S. Wm. Rockefeller

2-10 K.W. 110 VOLT ENGINE DRIVEN GENERATING SETS CONSISTING OF B.F. STURTEVANT 6X6
1-57 ENGINE AND MP 6 GENERATOR

Capacity of Dynamo 90 Amperes at 110 Volts, whether continuous or alternating current CONTINUOUS

Where is Dynamo fixed ENGINE ROOM Whether single or double wire system is used DOUBLE

Position of Main Switch Board ENGINE ROOM having switches to groups 7 of lights, etc., as below

Positions of auxiliary switch boards and numbers of switches on each 1-4 BRANCH PANEL LOCATED ON BRIDGE DECK
FRAME 19, 1-4 BRANCH PANEL LOCATED ON UPPER DECK FRAME 44, 1-4 BRANCH PANEL
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 NO

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 LAMP CIRCUITS

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 248 arranged in the following groups:—

	lights each of	WATTS	candle power requiring a total current of	Amperes
A <u>12</u>	<u>50</u>	<u>50</u>	<u>5.45</u>	
B <u>231</u>	<u>25</u>	<u>52.5</u>		
C <u>5</u>	<u>2</u>	<u>.31</u>		
D				
E				
<u>3</u> Mast head light with <u>1</u> lamps each of <u>50</u>		<u>1.4</u>		
<u>2</u> Side light with <u>1</u> lamps each of <u>50</u>		<u>1.</u>		
<u>6</u> Cargo lights of <u>500</u>				

If arc lights, what protection is provided against fire, sparks, etc. NO ARC LAMPS INSTALLED

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

DESCRIPTION OF CABLES.

	Amperes, comprised of	wires, each	W.G. diameter,	square inches total sectional area
Main cable carrying <u>90</u>	<u>19</u>	<u>12</u>	<u>.0974</u>	
Branch cables carrying <u>59</u>	<u>7</u>	<u>12</u>	<u>.0974</u>	
Branch cables carrying <u>9</u>	<u>1</u>	<u>12</u>	<u>.0974</u>	
Leads to lamps carrying <u>54</u>	<u>1</u>	<u>14</u>	<u>.0032</u>	
Cargo light cables carrying <u>4.5</u>	<u>1</u>	<u>14</u>	<u>.0032</u>	

DESCRIPTION OF INSULATION, PROTECTION, ETC.

NEXT TO THE CONDUCTOR (A) A LAYER OF VULCANIZED RUBBER COMPOUND, (B) A LAYER OF COTTON BRAID, (C) A WEATHERPROOF PRESERVATIVE COMPOUND. TWO SUCH CONDUCTORS ARE LAID FLAT AND COVERED WITH A WEATHERPROOF BRAID.

Joints in cables, how made, insulated, and protected JOINTS ARE SPLICED AND SOLDERED. COVERED WITH A LAYER OF RUBBER COMPOUND AND A LAYER OF TAPE. CONNECTIONS IN GENERAL ARE MADE IN JUNCTION BOXES OR MOULDING.

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

Are the cables led through the ship, and how protected CONDUIT OR MOULDING



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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

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat NONE LED CLOSE TO THESE SOURCES

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

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

How are cables carried through beams IN CONDUIT through bulkheads, &c. IN CONDUIT

How are cables carried through decks IN CONDUIT

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

If so, how are they protected CONDUIT AND KEPT WELL UP TO DECK

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

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

Where are the main switches and fuses for these lights fitted IN ENGINE ROOM

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 YES

Are any switches, fuses, or joints of cables fitted in the pump room or companion NO

How are the lamps specially protected in places liable to the accumulation of vapour or gas STEAM TIGHT GLOBES

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. Pierce

Electrical Engineers

Date 12-18-16

COMPASSES.

Distance between dynamo or electric motors and standard compass 22 FEET (12" FAN)

Distance between dynamo or electric motors and steering compass 17 FEET (12" FAN)

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>.06</u>	<u>2</u>	<u>2</u>	
<u>.36</u>	<u>8</u>	<u>14</u>	
<u>—</u>	<u>—</u>	<u>—</u>	

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.

Wm. L. Thomas

Builder's Signature.

Date December 18/16

GENERAL REMARKS.

This installation has been well, and proved satisfactory on trial

THE RECORD Elec. Light.

J. W. D. 19/1/17.

A. T. Thomas

Surveyor to Lloyd's Register of Shipping.

Committee's Minute



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