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Rpt. 13.

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 19252

Port of New York Date of First Survey 20 July Date of Last Survey 30 Sept/20 No. of Visits 5
 No. in Reg. Book on the Steel Ship "Provincetown" Port belonging to Groton, Connecticut.
 Built at Groton, Conn. By whom Groton Iron Works. When built 1920.9
 Owners U.S. Shipping Board, E.F.C. Owners' Address _____
 Yard No. 8. Electric Light Installation fitted by Groton Iron Works When fitted Sept. 1920.9

DESCRIPTION OF DYNAMO, ENGINE, ETC.
 Two dynamos, directed connected to steam turbines manufactures by Terry Steam Turbine Co., Hartford, Conn.

Capacity of Dynamo 15 K.W. 150 Amperes at 120 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double Wire
 Position of Main Switch Board Engine Room having switches to groups 13 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None

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 25% 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
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 177 arranged in the following groups:—

A Forecastle	19	lights each of	40 Watt	30	candle power requiring a total current of	8	Amperes
B Captain's	30	lights each of	40 Watt	30	candle power requiring a total current of	12	Amperes
C Amidships	28	lights each of	40 Watt	30	candle power requiring a total current of	12	Amperes
	9		100 Watt	80		9	Amperes
D Engine Room	10	lights each of	40 Watt	30	candle power requiring a total current of	5	Amperes
	10		40 Watt	30		12	Amperes
E Poop	28	lights each of	40 Watt	30	candle power requiring a total current of	4	Amperes
Fire Room	8	lights each of	40 Watt	30	candle power requiring a total current of	4	Amperes
Fire Room	4		100 Watt	80		1.4	Amperes
2 Mast head light with	2	lamps each of	40 Watt	30	candle power requiring a total current of	.7	Amperes
1 Stern Light	2		40 Watt	30		1.4	Amperes
2 Side light with	2	lamps each of	40 Watt	30	candle power requiring a total current of	1.4	Amperes
12		Cargo lights of	40 Watts 4 Lamps	30	candle power, whether incandescent or arc lights		Incandescent.

If are lights, what protection is provided against fire, sparks, &c. 0

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

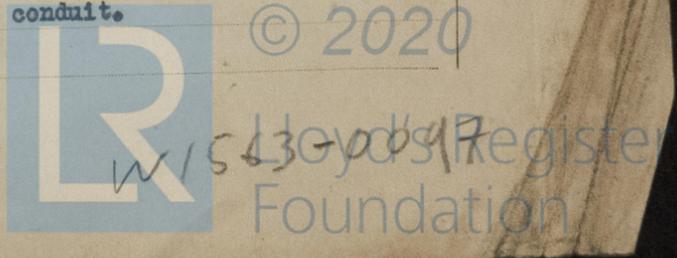
DESCRIPTION OF CABLES.

Main cable carrying	<u>150</u>	Amperes, comprised of	<u>2</u>	wires, each	<u>00 B.S.</u>	<u>XXX</u> S.W.G. diameter,	<u>.102</u>	square inches total sectional area
Branch cables carrying	<u>55</u>	Amperes, comprised of	<u>2</u>	wires, each	<u>#4 B.S.</u>	<u>XXX</u> S.W.G. diameter,	<u>.044</u>	square inches total sectional area
Branch cables carrying	<u>30</u>	Amperes, comprised of	<u>2</u>	wires, each	<u>#6 B.S.</u>	<u>XXX</u> S.W.G. diameter,	<u>.020</u>	square inches total sectional area
Leads to lamps carrying	<u>8</u>	Amperes, comprised of	<u>2</u>	wires, each	<u>#8 B.S.</u>	<u>XXX</u> S.W.G. diameter,	<u>.016</u>	square inches total sectional area
Cargo light cables carrying	<u>13</u>	Amperes, comprised of	<u>2</u>	wires, each	<u>#10 B.S.</u>	S.W.G. diameter,	<u>.008</u>	square inches total sectional area
	<u>4</u>		<u>2</u>		<u>#12 B.S.</u>		<u>.005</u>	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.
 Double Braid wire in galvanized iron conduit.

Joints in cables, how made, insulated, and protected Connecting blocks in watertight iron 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 In and by galvanized iron conduit.



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 **Iron Conduit.**

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat **Iron Conduit.**

What special protection has been provided for the cables near boiler casings **Iron Conduit.**

What special protection has been provided for the cables in engine room **Iron Conduit.**

How are cables carried through beams **Iron Conduit** through bulkheads, &c. **Iron Conduit and stuffing tubes.**

How are cables carried through decks **Iron Conduit and stuffing tubes.**

Are any cables run through coal bunkers **No.** or cargo spaces **Yes** or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected **Iron 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 **Plug receptacle on deck.**

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 **to 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 **yes**

How are the lamps specially protected in places liable to the accumulation of vapour or gas **vapor proof 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 **660** 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.

Chas. B. Weber Electrical Engineers Date **Sept. 1920**

COMPASSES.

Distance between dynamo or electric motors and standard compass **80 feet**

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

The nearest cables to the compasses are as follows:—

A cable carrying	.2	Ampères	4 inches	feet from standard compass	4	feet from steering compass
A cable carrying	.4	Ampères	6	feet from standard compass	6	feet from steering compass
A cable carrying	30	Ampères	10	feet from standard compass	12	feet from steering compass

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.

Geotm Iron Works by J. M. Main Builder's Signature. Date **Sept 30/20**

GENERAL REMARKS.

The fitting of the wires throughout this vessel is as stated in this report and appears to be in accordance with the Committee requirements.

It is submitted that this vessel is eligible for THE RECORD. Elec Lt.

Recd 6/11/20

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

Committee's Minute

Elec Lt

New York OCT 19 1920



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.