

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 14883

New York
 Date of First Survey *12 Nov 17* Date of Last Survey *24 " 18* No. of Visits *8*
 on the *Iron* Steel *S/S Muscatine* Port belonging to
 Built at *Brooklyn Navy Yard New York* By whom *Standard S.B. Corp.* When built *1918-3*
United States Shipping Board Officers' Address
2 Electric Light Installation fitted by *J.P. Barr & Co.* When fitted *1918*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two (2) 15 K.W. Westinghouse D.C. Generalis direct connected to
single cylinder A.T.E. Engines - forced lubrication
 of Dynamo *136* Amperes at *110* Volts, whether continuous or alternating current *Continuous*
 Dynamo fixed *dynamo in middle of room* Whether single or double wire system is used *Double*

Main Switch Board *near dynamo* having switches to groups *A A² B² C² D² E² F²* of lights, &c., as below
 of auxiliary switch boards and numbers of switches on each *A Engine room - 6 switches, A² Midship Accommodation*
3¹ Crew Foreward 8 switches, B² Engine Room Accommodation 4 switches, C Navigation 7 Refrigerating
room 4 switches, D² Mach. Rm. 1 sw. E Deck and Deck Machinery 2 switches, F² Midship 1 sw.

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*
 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*
 fuses of non-oxidizable metal *W.C. Enclosed fuses* and constructed to fuse at an excess of *100* per cent over the normal current
 fuses fitted in easily accessible positions *yes* Are the fuses of standard dimensions *yes* If wire fuses are used
 permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit *yes*
 switches and fuses constructed of incombustible materials and fitted on incombustible bases *yes*

Number of lights provided for *154* arranged in the following groups:—

Do. 1	38	lights each of	25 watt = 20	candle power requiring a total current of	8.7	Amperes
Do. 2	21	lights each of	25 "	"	4.8	"
Do. 3	34	lights each of	25 "	"	7.8	Amperes
Do. 4	24	lights each of	25 "	"	5.5	Amperes
Do. 5	15	lights each of	25 "	"	3.3	Amperes
Do. 6	10	lights each of	25 "	"	6.	Amperes
Do. 7	30	lights each of	25 "	"	30.	Amperes
Do. 8	35	lights each of	25 "	"	35.	Amperes
Do. 9	1	lamps each of	40 W = 32	candle power requiring a total current of	.9	Amperes
Do. 10	1	lamps each of	40 W = 32	"	.9	Amperes
Do. 11	6	Cargo lights of 6 lamps each = 25 W		candle power, whether incandescent or arc lights		

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

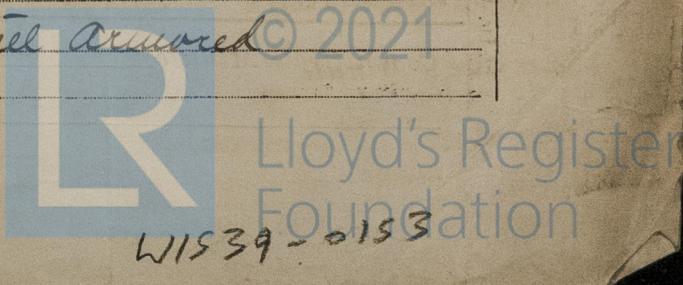
Are the switches controlling the masthead and side lights placed *Control Panel in Chart room*

DESCRIPTION OF CABLES.

Cables carrying	171	Amperes, comprised of	38	wires, each	16 +	B&S S.W.G. diameter, .1312	square inches total sectional area
Cables carrying	35	Amperes, comprised of	4	wires, each	17 +	B&S S.W.G. diameter, .0206	square inches total sectional area
Cables carrying	20	Amperes, comprised of	7	wires, each	18	B&S S.W.G. diameter, .0129	square inches total sectional area
Lamps carrying	3	Amperes, comprised of	1	wires, each	16	B&S S.W.G. diameter, .0032	square inches total sectional area
Light cables carrying	14	Amperes, comprised of	47	wires, each	31 -	B&S S.W.G. diameter, .0032	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The cables are insulated their entire length with a *Para rubber Compound*
 only applied and well caulked. Covered with 2 worn Cotton braids
 impregnated with a moisture repellent Compound - solution where in conduit
 cables, how made, insulated, and protected *joints on cables in conduit made in watertight brass or*
brass iron boxes - make the joints in the armored cables - where lead covered
the joints are made at the fixture, switch or junction terminal block provided
 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 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 conduit and steel armored*



L1539-0153

DESCRIPTION OF INSULATION, PROTECTION, ETC. continued.

Are they in places always accessible *except in Lock and Bunkers*

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *in galvanized pipes*

Conduit made up watertight and steel armored and lead covered

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Conduit or steel armored ^{lead} covered*

What special protection has been provided for the cables near boiler casings *Conduit + steel armored-lead covered*

What special protection has been provided for the cables in engine room *steel armored and lead covered also conduit*

How are cables carried through beams *steel armored or in conduit through bulkheads, &c. in conduit made watertight*

How are cables carried through decks *through conduit made up watertight*

Are any cables run through coal bunkers *yes* or cargo spaces *yes* or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected *steel armored cables or double leaded rubber Cor. pipe in conduit*

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

If so, how are the lamp fittings and cable terminals specially protected *screwed fittings with fixtures, lead Cor. ^{of fixtures} over glass*

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 *isolate from* How fixed *plug connections boxes*

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 *Main 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.

J. Dannebo Electrical Engineers Date *Apr 27/18*

COMPASSES.

Distance between dynamo or electric motors and standard compass *130*

Distance between dynamo or electric motors and steering compass *120*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>30</i>	Amperes	<i>6</i>	feet from standard compass	<i>4</i>	feet from steering compass
A cable carrying	<i>14</i>	Amperes	<i>0</i>	feet from standard compass	<i>8</i>	feet from steering compass
A cable carrying	<i>14</i>	Amperes	<i>8</i>	feet from standard compass	<i>0</i>	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.

W. H. D. Shipley Builder's Signature. Date _____

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's requirements.

It is submitted that this vessel is eligible for THE RECORD. Elec. light. *JWD.*

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

Reg. 116—Transfer.

Committee's Minute

Elec. light

Surveyor's Signature



© 2021

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.