

10 AUG 1918  
No. 1043

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

Port of Boston, Mass. Date of First Survey 10 June Date of Last Survey 6 July 1918 No. of Visits 4  
 To in on the Steel SAGADAHOC Port belonging to Bath, Me.  
 n. Book Built at Bath, Me. By whom The Texas Steamship Company When built 1918  
 ners U. S. Shipping Board. Owners' Address Washington D. C.  
 rd No. 3 Electric Light Installation fitted by The Texas Steamship Company When fitted 1918

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 - 10 KW dynamos direct driven by vertical steam engines

each capacity of Dynamo 91 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 A, B, C, D, E, F, G, H, J, K, L of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each One in fore-castle with 4 switches, One in engineers quarters with 8 switches, One in officers quarters with 6 switches, One in poop with 4 switches. One tell tale in pilot house with 3 switches  
 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 none and to each lamp circuit no.  
 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 To all but lamp circuits  
 are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of less than 100 per cent over the normal current  
 are all fuses fitted in easily accessible positions yes Are the fuses of standard dimensions Enclosed type 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 On fuse cases.  
 are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes.

total number of lights provided for 201 arranged in the following groups:—  

Fore peak	18	lights each of average	48	candle power requiring a total current of	9.8	Amperes
Boiler Room	12	lights each of average	40	candle power requiring a total current of	6	Amperes
Engine Room Port	20	lights each of average	48	candle power requiring a total current of	10.9	Amperes
Engineers Quarters	38	lights each of average	48	candle power requiring a total current of	20.7	Amperes
Engine Room Starboard	19	lights each of average	48	candle power requiring a total current of	10.4	Amperes
2 Mast head light with	1	lamps each of	48	candle power requiring a total current of	5	Amperes
2 Side light with	1	lamps each of	48	candle power requiring a total current of		
24 Cargo lights of average			120	candle power, whether incandescent or arc lights	<u>incandescent</u>	

arc lights, what protection is provided against fire, sparks, &c.  
 There are the switches controlling the masthead and side lights placed

## DESCRIPTION OF CABLES.

main cable carrying 91 Amperes, comprised of 19 wires, each .074 S.W.G. diameter, .083 square inches total sectional area  
 branch cables carrying 15 Amperes, comprised of 7 wires, each .048 S.W.G. diameter, .013 square inches total sectional area  
 branch cables carrying 15 Amperes, comprised of 7 wires, each .038 S.W.G. diameter, .008 square inches total sectional area  
 leads to lamps carrying 5 Amperes, comprised of 1 wires, each .064 S.W.G. diameter, .003 square inches total sectional area  
 cargo light cables carrying 32.4 Amperes, comprised of 7 wires, each .048 S.W.G. diameter, .013 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Heavy rubber insulation covered with braided waterproof fibre & carried in steel conduit throughout.

joints in cables, how made, insulated, and protected Soldered, well taped & made in metal 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 Steel conduits

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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 *Steel conduits*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Steel conduits*

What special protection has been provided for the cables near boiler casings *Steel conduits*

What special protection has been provided for the cables in engine room *Steel conduits*

How are cables carried through beams *Steel conduits* through bulkheads, &c. *Steel conduits made watertight*

How are cables carried through decks *Steel conduits made watertight*

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 *Steel conduits run high up under deck*

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

If so, how are the lamp fittings and cable terminals specially protected *Poop is fitted up for accommodation of gun crew*

Where are the main switches and fuses for these lights fitted *at present. These lights will be removed in normal times*

If in the spaces, how are they specially protected *no*

Are any switches or fuses fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *Permanent* How fixed *Lights fixed on standards on bridge mark house*

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 with 2, fixed on main switch*

**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° Fahr. 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 warrant that it is at this date in good order and safe working condition.

*The Texas Steamship Co* Electrical Engineers Date *22.8.18*  
*per Geo B Doole mgr*

**COMPASSES.** Distance between dynamo or electric motors and standard compass *about 100 feet*  
 Distance between dynamo or electric motors and steering compass *90 "*

The nearest cables to the compasses are as follows:—

A cable carrying *1/8 (Binnacle)* Amperes *close to* feet from standard compass *close to* feet from steering compass

A cable carrying *2 (Signal lights)* Amperes *about 12* feet from standard compass *about 8* feet from steering compass

A cable carrying *35 (Searchlight)* Amperes *1/2* feet from standard compass *1/2* 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 *✓* degrees on *✓* course in the case of the standard compass and *✓* degrees on *✓* course in the case of the steering compass.

*The Texas Steamship Co* Builder's Signature. Date *22.8.18*  
*per Geo B Doole mgr*

**GENERAL REMARKS.** This Electric Light Installation has been fitted in accordance with the Rules & the workmanship & material are good. It has been satisfactorily tried under full load & it is now in good & safe working condition & eligible in my opinion, to receive the notation 'ELEC. LIGHT' in the Register Book. *It is submitted that this vessel is eligible for THE RECORD. ELEC. LIGHT*

*John S. Heck*  
 Surveyor to Lloyd's Register of Shipping

Committee's Minute *Elec Lt.* New York JUL 23 1918

Boston, Mass.

Continuation of Report No. 1043 dated 12th July, 1918, on the

**ELECTRIC LIGHT INSTALLATION**

of the

Steamer 'SAGADAHOC', of Bath, Maine.

Details of lights continued:

Poop. 24 lights, average 48 c.p. requiring a total current of 13 amperes.

Officers' quarters. 33 lights, average 48 c.p. requiring a total current of 18 amperes.

Radio. requiring a total current of 20 amperes.

Searchlight. requiring a total current of 36 amperes.

Description of cables continued:

Carrying 10.9 amps. comprised of 7 wires, each .038" diameter, .008 sq.in. sectional area.

"	20.7	"	"	7	"	"	.048"	"	.013	"	"	"	"
"	10.4	"	"	7	"	"	.038"	"	.008	"	"	"	"
"	5	"	"	7	"	"	.048"	"	.013	"	"	"	"
"	13	"	"	7	"	"	.048"	"	.013	"	"	"	"
"	18	"	"	7	"	"	.048"	"	.013	"	"	"	"
"	20	"	"	7	"	"	.048"	"	.013	"	"	"	"
"	36	"	"	7	"	"	.061"	"	.021	"	"	"	"

*John S. Heck*

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