

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 645

Port of Seattle Wash Date of First Survey April 20 Date of Last Survey Sept. 7 No. of Visits —

No. in 1 on the ~~Iron~~ Steel Screw Steamer "ANACORTES" Port belonging to Yaquina  
Reg. Book FIRST ENTRY Built at Yaquina By whom Todd Dry Dock & Construction Corp When built 1918

Owners US Shipping Board & Emergency Reel Corp Owners' Address —  
Yard No. 101 Electric Light Installation fitted by Todd Dry Dock & Construction Corp When fitted 1918

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 Dynamo 7 1/2 KW-HP Compound wound direct connected to 5' x 5' single vertical steam engine

Capacity of Dynamo 7 1/2 KW - 68 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine room platform Whether single or double wire system is used Double

Position of Main Switch Board Engine room platform having switches to groups A, B, C, D, E, F of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each A. Forward deck house starboard passage 4 switches, B. After deck house starboard passage 4 switches, C. Forecastle passage 4 switches, D. Port passage 2 switches, E. Engine room 12 switches, F. Wheel house for running lights 6 switches.

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 No 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 184 arranged in the following groups:—

A	26	lights each of	25 Watts	candle power requiring a total current of	5.99	Amperes
B	37	lights each of	25 "	candle power requiring a total current of	8.49	Amperes
C	20	lights each of	25 "	candle power requiring a total current of	4.54	Amperes
D	20	lights each of	25 "	candle power requiring a total current of	4.54	Amperes
E	76	lights each of	40 "	candle power requiring a total current of	27.63	Amperes
F	1	Mast head light with 1 lamps each of	40 "	candle power requiring a total current of	1.72	Amperes
	2	Side light with 1 lamps each of	40 "	candle power requiring a total current of		
	1	Auxiliary stem light each of	40 "	candle power requiring a total current of		
		24 Cargo lights of each in 6 clusters of 4 lights included in group E	40 "	candle power, whether incandescent or arc lights		<u>Incandescent</u>

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

Where are the switches controlling the masthead and side lights placed Wheel House

### DESCRIPTION OF CABLES.

Main cable carrying 53 Amperes, comprised of 7 wires, each # 14 S.W.G. diameter, .035 square inches total sectional area

Branch cables carrying 28 Amperes, comprised of 7 wires, each # 18 S.W.G. diameter, .0126 square inches total sectional area

Branch cables carrying — Amperes, comprised of — wires, each — S.W.G. diameter, — square inches total sectional area

Leads to lamps carrying 4 Amperes, comprised of 1 wires, each # 16 S.W.G. diameter, .0032 square inches total sectional area

Cargo light cables carrying 1.6 Amperes, comprised of 27 wires, each # 33 S.W.G. diameter, .0021 square inches total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulated with vulcanized rubber & Cotton braid saturated with pure wax compound. Mains protected by conduits, Feeders by leaded armor Branches by armor

Joints in cables, how made, insulated, and protected Soldered. Covered with one layer of rubber tape, two layers of friction tape and painted with P & B insulating paint.

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 accessible

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 conduits or armor laid under and along beams and clamped thereto



**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 Leaded and Armored

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Leaded and Armored

What special protection has been provided for the cables near boiler casings Leaded and Armored

What special protection has been provided for the cables in engine room Leaded and Armored

How are cables carried through beams Leaded & Armored thru dished holes through bulkheads, &c. Elliptical flanges packed

How are cables carried through decks Deck 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 yes

If so, how are they protected Armored and clamped to deck overhead

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 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.

Todd Dry Dock and Construction Corporation J. A. Eves, Mgr. Electrical Engineers Date Oct 1-1918

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 100 feet

Distance between dynamo or electric motors and steering compass 90 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>1</u>	Amperes	<u>8</u>	feet from standard compass	<u>8</u>	feet from steering compass
A cable carrying	<u>1</u>	Amperes	<u>8</u>	feet from standard compass	<u>8</u>	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 Various course in the case of the standard compass and nil degrees on Various course in the case of the steering compass.

Todd Dry Dock and Construction Corporation J. A. Eves, Mgr. Builder's Signature. Date Oct 1-1918

**GENERAL REMARKS.**

The Electric lighting installation of good quality and workmanship, tested under working conditions and found satisfactory. Eligible, in my opinion, to be noted in the Register Book

THE RECORD. ELEC. LIGHT  
12-11-18

James Fowler  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. Lt. New York OCT 15 1918



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.