

April 24 1917

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2477.

Port of SAN FRANCISCO, Date of First Survey _____ Date of Last Survey _____ No. of Visits _____
 No. in _____ on the ~~Iron or Steel~~ s/s "REGULUS", Port belonging to Christiania, Norway.
 Suppl. Built at Alameda, Cal. By whom Union Iron Works Co. (Alameda Branch) When built 1917
 52 Owners A.O. Lindvig. Owners' Address Chrisitiania, Norway.
 Yard No. 16 Electric Light Installation fitted by CHAS W. DAHL & SON. When fitted 1917.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Sturtevant Engine 6 x 6 direct connected to Sturtevant Dynamo. Speed 450 r.p.m.

Capacity of Dynamo 10 k.w. Amperes at 110 Volts, whether continuous or alternating current direct ✓
 Where is Dynamo fixed Starb. side Eng. Rm. floor Whether single or double wire system is used double ✓
 Position of Main Switch Board near Generator having switches to groups 7 circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 6-circuit panel board in iron cabinet located in passageway Midship house. Five switches in Pilot house to control all running lights.
 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 cessel 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 10% 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 no wire fuses.
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes, according to National Underwriters.
 Total number of lights provided for 100 arranged in the following groups:—

| | | | | | | |
|---|--|----------------|-----------|--|-----|---------|
| A | 35 | lights each of | 16 | candle power requiring a total current of | 18 | Amperes |
| B | 63 | lights each of | 40 watts | candle power requiring a total current of | 14 | Amperes |
| C | 1-signal light | lights each of | 40 " | candle power requiring a total current of | 1/3 | Amperes |
| D | 1-stern | lights each of | 1 - 16 | candle power requiring a total current of | 1/2 | Amperes |
| E | 1-range | lights each of | 1 - 16 | candle power requiring a total current of | 1/2 | Amperes |
| | 1 Mast head light with 1 lamps each of | | 32 | candle power requiring a total current of | 1 | Amperes |
| | 2 Side light with 1 lamps each of | | 16 | candle power requiring a total current of | 2 | Amperes |
| | 6 Cargo lights of | | 500 watts | candle power, whether incandescent or are lights <u>yes, 24 amperes</u> | | |

 If arc lights, what protection is provided against fire, sparks, &c. no arc lights

Where are the switches controlling the masthead and side lights placed in Pilot House.

DESCRIPTION OF CABLES.

| | | | | | | |
|-----------------------------|----|-----------------------|----|-------------|------------------------|------------------------------------|
| Main cable carrying | 90 | Amperes, comprised of | 7 | wires, each | S.W.G. diameter, .066 | square inches total sectional area |
| Branch cables carrying | 35 | Amperes, comprised of | 7 | wires, each | S.W.G. diameter, .0165 | square inches total sectional area |
| Branch cables carrying | 15 | Amperes, comprised of | 1 | wires, each | S.W.G. diameter, .0065 | square inches total sectional area |
| Leads to lamps carrying | 15 | Amperes, comprised of | 1 | wires, each | S.W.G. diameter, .0042 | square inches total sectional area |
| Cargo light cables carrying | 30 | Amperes, comprised of | 28 | wires, each | S.W.G. diameter, .0042 | square inches total sectional area |

DESCRIPTION OF INSULATION, PROTECTION, ETC.

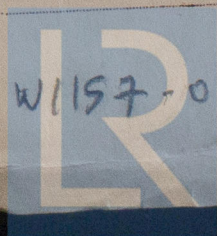
Conduit System throughout, vapor proof fixtures in all places exposed to moisture.
Swtiches controlling lights in each room.

Joints in cables, how made, insulated, and protected Soldered, rubber and friction tape, painted with moisture proof 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 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 iron conduit, thoroughly strapped. Through all decks and w.t. bulkheads pipe run through brass stuffing boxes.



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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 conduit

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 conduit through bulkheads, &c. conduit ✓

How are cables carried through decks conduit ✓

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

If so, how are they protected 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

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 switch board.

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.

Signed

C. W. DAHL & SON ELEC. CO.

Electrical Engineers

Date April 12th 1917.

COMPASSES.

Distance between dynamo or electric motors and standard compass forty feet

Distance between dynamo or electric motors and steering compass thirty-five feet

The nearest cables to the compasses are as follows:—

| A cable carrying | Amperes | feet from standard compass | feet from steering compass |
|------------------|-----------------------------------|-----------------------------------|----------------------------|
| <u>3</u> | <u>5</u> | <u>11</u> | <u>11</u> |
| <u>1/2</u> | <u>1</u> | <u>1</u> | <u>1</u> |
| <u>Amperes</u> | <u>feet from standard compass</u> | <u>feet from steering compass</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 any course in the case of the standard compass and nil degrees on any course in the case of the steering compass.

UNION IRON WORKS COMPANY,

By Engineer-in-Chief.

Builder's Signature.

Date April 18th 1917.

GENERAL REMARKS. This installation has been fitted in accordance with the Rules, tested under working conditions and found in order, and the vessel is eligible in the opinion of the undersigned to have record of ELECTRIC LIGHT in the Register Book.

It is submitted that this vessel is eligible to THE RECORD. Elec. light.

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

New York APR 26 1917

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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