

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 446

Port of Portland, Ore. Date of First Survey Sept. 4th Date of Last Survey Oct. 14th No. of Visits 8
 No. in on the Iron or Steel S.S. War Viceroy Port belonging to London
 Reg. Book Built at Portland, Oregon By whom North West Steel Co. When built 1914
 Owners Gunard S.S. Co. Owners' Address Liverpool
 Yard No. 2 Electric Light Installation fitted by C. E. Page McKenny 160 When fitted 1914

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two 15 K.W. 115 Volt Compound wound generators connected direct to single cylinder reciprocating engines
 Capacity of Dynamo 136 Amperes at 115 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed on platform in Engine Room Whether single or double wire system is used double ✓
 Position of Main Switch Board on platform in Engine Room having switches to groups 9 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1 in Chart Ho. 6 60w. 2 in Port passage 648 pws. One in Crews Quarters, 60w. 2 in Starboard passage amidships, 60w. One in Engine Room 100 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 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

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 298 arranged in the following groups:—

A	9 lights each of 40 Watts, 32 candle power requiring a total current of	3 Amperes
B	54 lights each of 40 " 32 candle power requiring a total current of	18 Amperes
C	51 lights each of 40 " 32 candle power requiring a total current of	14 Amperes
D	38 lights each of 40 " 32 candle power requiring a total current of	13 Amperes
E	46 lights each of 40 " 32 candle power requiring a total current of	15 Amperes
1	Mast head light with 1 lamps each of 40 " 32 candle power requiring a total current of	32 Amperes
2	Side light with 1 lamps each of 40 " 32 candle power requiring a total current of	64 Amperes
80	Cargo lights of 40 " 32 candle power, whether incandescent or arc lights	incandescent

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

Where are the switches controlling the masthead and side lights placed In Chart House

DESCRIPTION OF CABLES.

126 see above
 Main cable carrying 225 Amperes, comprised of 44 wires, each 8000 S.W.G. diameter, 211,600 square inches total sectional area
 Branch cables carrying 50 Amperes, comprised of 66 wires, each 6 S.W.G. diameter, 26,744 square inches total sectional area
 Branch cables carrying 35 Amperes, comprised of 66 wires, each 8 S.W.G. diameter, 16,384 square inches total sectional area
 Leads to lamps carrying 25 Amperes, comprised of 44 wires, each 10 S.W.G. diameter, 10,404 square inches total sectional area
 Cargo light cables carrying 4 Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area
included above

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber covered, double braided, National Electric Code Standard

Joints in cables, how made, insulated, and protected Soldered and taped - splicing compound and friction tape, painted with B & B Selectrical 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 metal conduits & wood moulding

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 Metal conduits

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

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

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

How are cables carried through beams Metal conduits through bulkheads, &c. Metal conduits

How are cables carried through decks Metal conduits well locked and packed

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 Metal conduits

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 W.T. Switches in boxes, watertight

Where are the main switches and fuses for these lights fitted in houses on bridge deck

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, two and with an amperemeter yes, two fixed by Engine Room on Stevedores

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.

Page McKim & Co Electrical Engineers Date Oct 29
By J.H. Sroufe

COMPASSES.

Distance between dynamo or electric motors and standard compass 150 ft.

Distance between dynamo or electric motors and steering compass 150 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	12 Amperes	12 feet from standard compass	10 feet from steering compass
A cable carrying	35 Amperes	25 feet from standard compass	16 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 none degrees on course in the case of standard compass and none degrees on course in the case of the steering compass.

Thurman Iron Steel Works Builder's Signature. Date Oct 29 1918
By W.H. Sroufe

GENERAL REMARKS.

The above installation has been made in accordance with the Rules the materials and workmanship are good and on trial proved satisfactory.

It is submitted that this vessel is eligible for THE RECORD. Elec. light. W.H. Sroufe 2/17/18.

J.H. Sroufe Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. light

New York JUN 4 1918

FRI 5 JUL 1918

FRI 23 MAR 1919

Lloyd's Register Foundation