

Feb. 28. 1917

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Received at London Office

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2523

Port of Philadelphia Date of First Survey 8th Dec 1916 Date of Last Survey 8th Feb 1917 No. of Visits 8
 No. in on the Iron or Steel S.S. "Almanger" Port belonging to
 Reg. Book Built at Chester By whom Chester A.B.C. When built 1917
 Owners Westful Larsen Owners' Address Bergen
 Yard No. 338 Electric Light Installation fitted by Joe Barre & Co When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 15 kW Westinghouse direct current generator direct connected to one single cylinder American power engine with forced lubrication

Capacity of Dynamo 125 Amperes at 125 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed on platform upper engine room Whether single or double wire system is used Double

Position of Main Switch Board on platform with separating switches to groups & distributing panels of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 1-6 circuit 6 switch Eng. Room 1-8 circuit 8 switch in Midship Accom. 1-6 circuit 6 switch in Forecastle 1-6 circuit 6 switch in Chart room for Navigation &c. 1 feed each for Port & Star Engine Rm Pump Rm & Thr. Rm.

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 Yes

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 100 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 on each fuse

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 128 arranged in the following groups:—

A Eng. Room 36 lights each of 25 WAX candle power requiring a total current of 9 Amperes

B Midship 34 lights each of " " candle power requiring a total current of 8 Amperes

C Forecastle 21 lights each of " " candle power requiring a total current of 5 Amperes

D Navigation 6 lights each of " " candle power requiring a total current of 2 Amperes

E Lamp Room 26 lights each of " " candle power requiring a total current of 6 Amperes

✓ Mast head light with 1 lamps each of 40 W 32 candle power requiring a total current of 7/3 Amperes

✓ Side light with 1 lamps each of 40 W 32 candle power requiring a total current of 7/3 Amperes

6-1 R = 6 2-6 = 12/18 Cargo lights of 16 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 on platform in Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 57 Amperes, comprised of 38 wires, each 17 S.W.G. diameter, 1.047 square inches total sectional area
 Branch cables carrying 9 Amperes, comprised of 7 wires, each 19 S.W.G. diameter, .0082 square inches total sectional area
 Branch cables carrying 5 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0129 square inches total sectional area
 Branch cables carrying 4 Amperes, comprised of 7 wires, each 22 S.W.G. diameter, .0051 square inches total sectional area
 Leads to lamps carrying 2 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .0032 square inches total sectional area
 Wireless feed 20 Amperes, comprised of 7 wires, each 17 S.W.G. diameter, .0082 square inches total sectional area
 Cargo light cables carrying 2 Amperes, comprised of 47 wires, each 3 S.W.G. diameter, .0032 square inches total sectional area

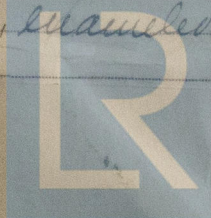
DESCRIPTION OF INSULATION, PROTECTION, ETC.

The insulation on the conductors is a layer of hard rubber insulation compound containing 30% pure gum rubber of a homogeneous character placed concentrically upon conductors. The whole covered with 2 braided copper impregnated with waterproof compound. Joints in cables, how made, insulated, and protected all joints in cables made mechanically secure soldered, insulated with rubber insulating tape, covered with black friction tape and protected in watertight metallic 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 No

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 galvanized iron conduit, encased in lead with watertight junction 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 *and watertight junction*

to weather or moisture *No*

fixed conduit

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Conduit and watertight boxes*

What special protection has been provided for the cables near boiler casings *Conduit and watertight boxes*

What special protection has been provided for the cables in engine room *Conduit and watertight boxes*

How are cables carried through beams *in Conduit*

through bulkheads, &c.

in Conduit

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

Are any cables run through coal bunkers *No*

or cargo spaces *No*

or spaces which may be used for carrying cargo, stores, or baggage *No*

If so, how are they protected *---*

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 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 *Yes*

Are any switches, fuses, or joints of cables fitted in the pump room or companion *No*

How are the lamps specially protected in places liable to the accumulation of vapour or gas *watertight fittings with vapor proof globes*

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.

Joe Barreles

Electrical Engineers

Date

Jan 30/1917

COMPASSES.

Distance between dynamo or electric motors and standard compass *approx 30 ft*

Distance between dynamo or electric motors and steering compass *270 "*

The nearest cables to the compasses are as follows:—

A cable carrying <i>1 1/2</i>	Ampères	<i>0</i>	feet from standard compass	<i>250</i>	feet from steering compass
A cable carrying <i>1 1/2</i>	Ampères	<i>750</i>	feet from standard compass	<i>0</i>	feet from steering compass
A cable carrying <i>9</i>	Ampères	<i>70</i>	feet from standard compass	<i>930</i>	feet from steering compass
<i>1 - " - 20</i>	Ampères	<i>120</i>	" "	<i>20</i>	" "

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

all

course in the case of the

standard compass and *nil*

degrees on

all

course in the case of the steering compass.

Chas. H. Sack

Builder's Signature.

Date

10th Feb 1917

GENERAL REMARKS.

The installation has been well fitted, and proved satisfactory under steam

It is submitted that this vessel is eligible to

THE RECORD. Elec. light

W.D.

A. T. Thomas

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

Committee's Minute

New York MAR 3 1917

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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