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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3474

GLoucester Date of First Survey Jan 21. 1918 Date of Last Survey Sept 30 1919 No. of Visits 46
on the Iron or Steel CARGO - ABRAHAM LINCOLN Port belonging to GLoucester
Built at GLoucester By whom PUSEY JONES CO When built 1919
Shipping and Emergency Fleet Corp. Owners' Address Gloucester City N.J.
Electric Light Installation fitted by PUSEY JONES CO. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

5 KVA WESTINGHOUSE TURBO GEN. SETS - 240 VOLTS - 3 PHASE
Y-CHE-DIRECT CONNECTED TO 3 1/2 KW EXCITER

Dynamo 300 Amperes at 240 Volts, whether continuous or alternating current A.C.

Dynamo fixed ENGINE ROOM BALCONY Whether single or double wire system is used DOUBLE

Main Switch Board " " " having switches to groups — of lights, &c., as below

auxiliary switch boards and numbers of switches on each NO AUX. BOARD.

fitted on main switch board to the cables of main circuit YES and on each auxiliary switch board to the cables of auxiliary

YES and at each position where a cable is branched or reduced in size YES and to each lamp circuit YES

wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits

of non-oxidisable metal YES and constructed to fuse at an excess of 100% per cent over the normal current

are fitted in easily accessible positions YES Are the fuses of standard dimensions YES If wire fuses are used

permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit NONE USED

switches and fuses constructed of incombustible materials and fitted on incombustible bases YES

Number of lights provided for — arranged in the following groups:—

3 lights each of 40 WATTS candle power requiring a total current of 41 Amperes

1 lights each of 25 WATTS candle power requiring a total current of 7 Amperes

4 lights each of 100 WATTS candle power requiring a total current of 4 Amperes

— lights each of — candle power requiring a total current of — Amperes

— lights each of — candle power requiring a total current of — Amperes

last head light with 2 lamps each of 60 WATTS candle power requiring a total current of 2 Amperes

Side light with 2 lamps each of 60 WATTS candle power requiring a total current of 2 Amperes

LT Cargo lights of 3240 WATTS candle power, whether incandescent or arc lights INCAND.

What protection is provided against fire, sparks, &c. —

the switches controlling the masthead and side lights placed MAIN SWRD. WITH TELL TALE IN P.H.

DESCRIPTION OF CABLES.

carrying 300 Amperes, comprised of 3 in parallel wires, each #10 BIS S.W.G. diameter, .249 square inches total sectional area

carrying 7 Amperes, comprised of 2 wires, each #10 BIS S.W.G. diameter, .016310 square inches total sectional area

carrying 3 Amperes, comprised of 2 wires, each #14 BIS S.W.G. diameter, .006450 square inches total sectional area

carrying 5 Amperes, comprised of 2 wires, each #14 BIS S.W.G. diameter, .006450 square inches total sectional area

carrying 3 Amperes, comprised of 2 wires, each #14 BIS S.W.G. diameter, .006450 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

LEADED ARMORED CABLE

Cables, how made, insulated, and protected NO JOINTS MADE IN CABLES

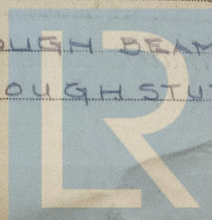
Joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances — Are all joints in accessible

places, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage

any joints in or branches from the cable leading from dynamo to main switch board

Cables led through the ship, and how protected CABLES ARE LED THROUGH BEAMS

BUSHINGS, AND THROUGH BHDs. DECKS THROUGH STUFFING TUBES



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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 L+A CABLE

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat L+A CABLE IN PIPE

What special protection has been provided for the cables near boiler casings L+A CABLE IN PIPE

What special protection has been provided for the cables in engine room L+A

How are cables carried through beams LEAD BUSHINGS through bulkheads, &c. STUFFING TUBES

How are cables carried through decks KICK PIPES

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

If so, how are they protected L+A CABLE ENCLOSED IN SHEET IRON CASING

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 SWITCH & RECEPT

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, sized ON SWBD

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.

J. Schlessinger

Electrical Engineers

Date Aug 28-19

COMPASSES.

Distance between dynamo or electric motors and standard compass 200 FT

Distance between dynamo or electric motors and steering compass 200 FT

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
2.5	2	2	
3	5	11	

Have the compasses been adjusted with and without the electric installation at work at full power —

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.

Genl. Supt. J. S. Stull
Pusey & Jones Co. Gloucester, Mass.

Builder's Signature.

Date August 29, 1919

GENERAL REMARKS.

THERE IS NO MAGNETIC EFFECT ON COMPASSES DUE TO THE FACT THAT ALTERNATING CURRENT IS USED FOR SPECIAL PROTECTION STEEL SHEATH IS REMOVED FROM CABLE WHERE SAME COMES IN CONTACT WITH COMPASSES. *This installation has been well fitted, and proved satisfactory on trial*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec Lt

New York OCT 21 1919

It is submitted that this vessel is eligible for THE RECORD ELEC. LIGHT

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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.