

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 21.

Port of Chicago Ill. Date of First Survey July 2nd Date of Last Survey Sept 15 1917 No. of Visits 7
 No. in Reg. Book on the ~~Iron or Steel~~ M. V. ADA Port belonging to New York
 Built at Manitowoc Wisconsin By whom Manitowoc Shipbuilding Co. When built 1917-9
 Owners United States Shipping Board, Emergency Fleet Corp. Owners' Address Washington D. C.
 Yard No. 80 Electric Light Installation fitted by Builders When fitted 1917-9

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 6 K.W. Engberg Generator with direct-coupled, totally enclosed engine.
 Capacity of Dynamo 56 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Port Side, Upper Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Beside Dynamo having switches to groups of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None, All circuits controlled from main switch board.

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 50 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. Fuses are "national enclosed".

Total number of lights provided for 115 arranged in the following groups:—

A	Crew's Quarters	19	lights each of	25 watt.	candle power requiring a total current of	4.3	Amperes
B	Tween Decks	17	lights each of	25 "	candle power requiring a total current of	3.8	Amperes
C	Cabins Amidships	22	lights each of	25 "	candle power requiring a total current of	5.0	Amperes
D	Deck Lights	14	lights each of	40 "	candle power requiring a total current of	5.0	Amperes
E	Port Deck House	16	lights each of	25 "	candle power requiring a total current of	3.6	Amperes
	Engine + Bl. Room	11	lights each of	40 "	candle power requiring a total current of	4.0	Amperes
		10	lights each of	60 "	candle power requiring a total current of	5.4	Amperes
	2 Mast head light with	2	lamps each of	60 watt.	candle power requiring a total current of	2.0	Amperes
	2 Side light with	1	lamps each of	60 "	candle power requiring a total current of	1.0	Amperes
	4 Cargo lights of			160 "	candle power, whether incandescent or arc lights		Incandescent.
	1 SEARCHLIGHT OF			7000 C.P.			

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

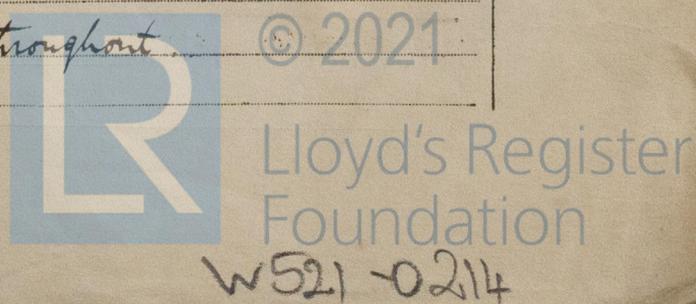
Where are the switches controlling the masthead and side lights placed In Chart Room.

DESCRIPTION OF CABLES.

Main cable carrying	<u>56</u> Amperes, comprised of	<u>2</u> wires, each	<u>No. 4</u> S.W.G. <u>B.S.</u> diameter,	<u>41740</u> square inches <u>circular mils.</u> total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	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	<u>6</u> Amperes, comprised of	<u>2</u> wires, each	<u>No. 14</u> S.W.G. diameter,	<u>4107</u> square inches total sectional area
Cargo light cables carrying	<u>1/4</u> Amperes, comprised of	<u>2</u> wires, each	" S.W.G. diameter,	" square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanised Rubber, double braided, led through galvd. iron conduit in cabins in wood moulding. All cables to specification & tests of National Board of Fire Underwriters.
 Joints in cables, how made, insulated, and protected Spliced, soldered, rubbered & friction taped in iron boxes where iron conduits are used.
 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 Galvd. iron conduit throughout.



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 and watertight fittings.

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 ditto

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

How are cables carried through beams Conduit through bulkheads, &c. W. T. Fittings Lock nuts.

How are cables carried through decks Conduit W. T. Fittings

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 In W. T. Conduit secured to deck beams

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 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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion Fuel Oil in double bottom only.

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.

MANITOWOC SHIP BUILDING COMPANY

Electrical Engineers

Date Sept. 26. 1917.

COMPASSES.

SECRETARY AND TREASURER

Distance between dynamo or electric motors and standard compass About 125 feet.

Distance between dynamo or electric motors and steering compass ditto.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>25</u>	Amperes	<u>5</u>	feet from standard compass	<u>5</u>	feet from steering compass
A cable carrying		Amperes		feet from standard compass		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 not officially.

The maximum deviation due to electric currents, etc., was found to be ✓ degrees on ✓ course in the case of the standard compass and MANITOWOC SHIP BUILDING CO. ✓ degrees on ✓ course in the case of the steering compass.

Charles West

Builder's Signature.

Date Sept. 26. 1917.

GENERAL REMARKS.

The vessel is fitted with a 7000 C.P. Searchlight, as indicated, and also with a wireless installation.

The above installation has been fitted in a satisfactory manner

and proved satisfactory under test.

It is submitted that this vessel is eligible for

THE RECORD Elec. Light

Committee's Minute

J.P. 5/11/17
Elec Light

W.R. Whelland.

Surveyor to Lloyd's Register of Shipping.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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