

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 284

Port of NEWPORT NEWS Date of First Survey July 10 Date of Last Survey 5th Aug 09 No. of Visits 5
 No. in on the Iron Steel SS 'JEAN' Port belonging to NEW YORK.
 Reg. Book 3. Built at NEWPORT NEWS VA. By whom NEWPORT NEWS S.B. & D.D.C. When built 1909
 Owners A.H. BULL S.S. Co Owners' Address NEW YORK.
 Yard No. 117 Electric Light Installation fitted by WESTERN ELECTRIC Co When fitted 1909

DESCRIPTION OF DYNAMO, ENGINE, ETC.

*A reconditioned Campbell & Shawcross (1936) generator and engine fitted 1/28.
 12 1/2 Kw, 110 Volts.*

ONE GENERAL ELECTRIC Co. MARINE TYPE, VERTICAL ENGINE
CONTINUOUS CURRENT.

Capacity of Dynamo 10 K.W. Amperes 80 Volts, whether continuous or alternating current 110

Where is Dynamo fixed STARTING PLATFORM Whether single or double wire system is used DOUBLE

Position of Main Switch Board NEAR DYNAMO having switches to groups H.B.C. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each ONE IN BRIDGE CABIN

ALLEYWAY:- 6 SWITCHES. ONE IN ENGINE ROOM:- 8 SWITCHES.

If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits YES

Are the cut outs of non-oxidizable metal YES and constructed to fuse at an excess of 100 per cent over the normal current

Are all cut outs 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 STANDARD

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases YES.

Total number of lights provided for 112 arranged in the following groups :-

A	<u>40</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>20</u>	Amperes		
B	<u>72</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>36</u>	Amperes		
C	<u>SEARCH</u>	lights each of		candle power requiring a total current of	<u>20</u>	Amperes		
D		lights each of		candle power requiring a total current of		Amperes		
E		lights each of		candle power requiring a total current of		Amperes		
	<u>1</u>	Mast head light with	<u>1</u>	lamps each of	<u>32</u>	candle power requiring a total current of	<u>1</u>	Amperes
	<u>2</u>	Side light with	<u>1</u>	lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes

4 CLUSTERS Cargo lights of 6 LAMPS - 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 PILOT HOUSE.

DESCRIPTION OF CABLES.

Main cable carrying 56 Amperes, comprised of 20 wires, each #14 B&S.G. diameter, .0580 square inches total sectional area
 Branch cables carrying 36 Amperes, comprised of 37 wires, each #17 B&S.G. diameter, .058 square inches total sectional area
 Branch cables carrying 20 Amperes, comprised of 7 wires, each #14 B&S.G. diameter, .021 square inches total sectional area
 Leads to lamps carrying 5 Amperes, comprised of 1 wires, each #12 B&S.G. diameter, .005 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 1 wires, each #14 B&S.G. diameter, .005 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

STANDARD MARINE. RUBBER, VULCANIZED, BRAID. TAPE.
ALL IN ENAMELLED IRON CONDUIT.

Joints in cables, how made, insulated, and protected SOLDERED. INSULATING TAPE, BRAID
ENCLOSED IN IRON BOXES.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 ENAMELLED IRON CONDUIT.

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 ENAMELLED IRON CONDUIT.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat IRON CONDUIT.

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

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

How are cables carried through beams IRON CONDUIT. through bulkheads, &c. " "

How are cables carried through decks " "

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 IRON CONDUIT

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 METAL COVERS.

Where are the main switches and cut outs for these lights fitted AT SWITCH BOARD IN ALLEYWAY.

If in the spaces, how are they specially protected ✓

Are any switches or cut outs fitted in bunkers No.

Cargo light cables, whether portable or permanently fixed PORTABLE. How fixed W.T. BY TERMINALS.

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 ✓

The installation is supplied with a voltmeter and an amperemeter, fixed MAIN SWITCH BOARD

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, cut outs, 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 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile after 24 hours' immersion in seawater.

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. K. Barabolt
Western Elect Co 463 West St Electrical Engineers Date Aug. 2. 09.
New York.

COMPASSES.

Distance between dynamo or electric motors and standard compass 88 ft.

Distance between dynamo or electric motors and steering compass 86 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>20</u>	Amperes	<u>8 ft.</u>	feet from standard compass	<u>8 ft.</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 Yes

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

Wm McDonald 'master' Builder's Signature. Date Aug. 3rd 09.

GENERAL REMARKS.

The installation has been fitted in accordance with the Rule requirements, and renders the vessel eligible in our opinion to have the notation "ELEC. LIGHT"

H. Stewart & John H. Alexander
Surveyors to Lloyd's Register of British and Foreign Shipping.

Committee's Minute. FRI. 3 SEP 1909