

Rpt. 13.

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of _____ Date of First Survey _____ Date of Last Survey 27.8.20 No. of Visits 14.5
 No. in Reg. Book _____ on the Iron or Steel "Creteblock" Port belonging to _____
 Built at Shocham by Sea. By whom John Ver Meer Esq. When built 1920
 Owners Ministry of Shipping Owners' Address _____
 Yard No. _____ Electric Light Installation fitted by Telford, Grier & Mackay Ltd When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Enclosed type Engine Forced lubrication single cylinder Double acting mounted on cast iron bedplate and direct coupled to open protected type compound wound dynamo.
 Capacity of Dynamo 50 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed lower Platform Starboard Side Whether single or double wire system is used Double
 Position of Main Switch Board Beside dynamo having switches to groups Four circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each no auxiliary switch boards

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 — and at each position where a cable is branched or reduced in size none 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 yes
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 54 arranged in the following groups:—
 A Navigation 5 lights each of 32 candle power requiring a total current of 5.00 Amperes
 B Accommodation 25 lights each of 8 and 16 candle power requiring a total current of 12.00 Amperes
 C Crew 10 lights each of 16 candle power requiring a total current of 5.00 Amperes
 D Engines 13 lights each of 16 candle power requiring a total current of 7.00 Amperes
 E _____ lights each of _____ candle power requiring a total current of _____ Amperes
3 Mast head lights with 1 lamp each of 32 candle power requiring a total current of _____ included above Amperes
2 Side lights with 1 lamp each of 32 candle power requiring a total current of _____ Amperes
1 Cargo lights of 96 candle power, whether incandescent or arc lights

If arc lights, what protection is provided against fire, sparks, &c. no arc lamps

Where are the switches controlling the masthead and side lights placed In wheel house

DESCRIPTION OF CABLES.

Main cable carrying 50 Amperes, comprised of 19 wires, each .064 S.W.G. diameter, .060 square inches total sectional area
 Branch cables carrying 5 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, .007 square inches total sectional area
 Branch cables carrying 12 Amperes, comprised of 7 wires, each .052 S.W.G. diameter, .0146 square inches total sectional area
 Leads to lamps carrying 2 Amperes, comprised of 3 wires, each .036 S.W.G. diameter, .0029 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 1 wires, each .064 S.W.G. diameter, .0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

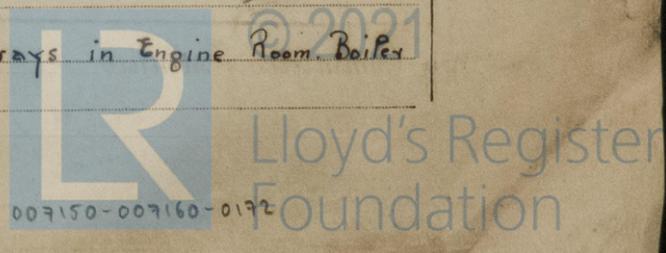
Cables throughout vessel are V.I.R. insulated 2500 meg. Grade association Braided over the V.I.R. and lead covered overall.

Joints in cables, how made, insulated, and protected 170 Joints

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances none 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 —

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 Cables are closely clipped to metal trays in Engine Room Boiler Room, &c. and protected by lead covering



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 Lead covered

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

What special protection has been provided for the cables near boiler casings Lead covered on Trays

What special protection has been provided for the cables in engine room Lead covered on Trays

How are cables carried through beams in tubes through bulkheads, &c. in W.T. Glands

How are cables carried through decks in W.T. Deck Tubes

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 Switchboard

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 — 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.

Telford Grier & Mackay Ltd Electrical Engineers Date 31/8/20

COMPASSES.

Distance between dynamo or electric motors and standard compass Approx. 50 feet

Distance between dynamo or electric motors and steering compass " 50 feet

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>5</u>	<u>10</u>	<u>10</u>	<u>10</u>
<u>2</u>	<u>3</u>	<u>3</u>	<u>3</u>
<u>10</u>	<u>35</u>	<u>35</u>	<u>35</u>

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 — course in the case of the standard compass and nil degrees on — course in the case of the steering compass.

John Walker Builder's Signature. Date 31/8/20

GENERAL REMARKS. The installation has been satisfactorily fitted in the vessel, tested at full load, and found satisfactory.

Elec Lt
Roll
14/9/20

Ed. W. Butler
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Im. 7.10.—Transfer.