

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 32839

Port of Hull Date of First Survey 12/7/21 Date of Last Survey 18/8/21 No. of Visits 5  
 No. in Reg. Book on the Iron or Steel S/S "MICKLETON" Port belonging to Hull  
 Built at Privately By whom Cook, Walton & Gummel When built 1921  
 Owners W. C. Bradley & Sons Owners' Address \_\_\_\_\_  
 Yard No. 440 Electric Light Installation fitted by Campbell & Isherwood Ltd When fitted 1921

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

4 Pole Compound Wound Campbell & Isherwood Dynamo direct coupled to Robey Engine with crank shaft governor, running at 350 Revs per min

Capacity of Dynamo 50 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Engine Room Whether single or double wire system is used Double

Position of Main Switch Board Engine Room having switches to groups 4 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Whelhouse 9 switches

Engine Room 4 -

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 25% 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 80-16 cp arranged in the following groups:—

A Navigation lights each of 20 16 candle power requiring a total current of 10 Amperes

B Saloon & Forward lights each of 19 16 candle power requiring a total current of 9.5 Amperes

C Aft lights each of 25 16 candle power requiring a total current of 12.5 Amperes

D Engines & Boilers lights each of 16 16 candle power requiring a total current of 8 Amperes

E / lights each of / candle power requiring a total current of / Amperes

2 Mast head light with 2 lamps each of 32 candle power requiring a total current of 2 Amperes

2 Side light with 2 lamps each of 32 candle power requiring a total current of 2 Amperes

2-6 Lt Cargo lights of 12-16 cp candle power, whether incandescent or are lights incandescent

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 \_\_\_\_\_

## DESCRIPTION OF CABLES.

Main cable carrying 50 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .0600 square inches total sectional area

Branch cables carrying 10 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0100 square inches total sectional area

Branch cables carrying 12.5 Amperes, comprised of 7 wires, each 17 S.W.G. diameter, .0145 square inches total sectional area

Leads to lamps carrying .5 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0015 square inches total sectional area

Cargo light cables carrying 3 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .0030 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

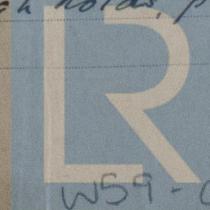
Engine Boiler & through holds lead covered or moused & braided ✓  
Cabins lead covered

Joints in cables, how made, insulated, and protected No joints ✓

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances ✓ 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 ✓

How are the cables led through the ship, and how protected LCA & B Cables through holds, protected as necessary by casing.



**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 Armoured & braided and lead covered

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

What special protection has been provided for the cables near boiler casings Lead covered armoured & braided

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

How are cables carried through beams Lead & Fibre ferrules through bulkheads, &c. Bulkhead Glands

How are cables carried through decks Duck Tubes 2'-0" long

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 Lead covered armoured & braided

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 Permanent to Boxes How fixed Brass coupling boxes

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 Main 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 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.

CAMPBELL & ISHERWOOD LTD.

T.R. Peake

Electrical Engineers

Date 25/8/21

**COMPASSES.**

Distance between dynamo or electric motors and standard compass Approx 100 ft

Distance between dynamo or electric motors and steering compass ditto

The nearest cables to the compasses are as follows:—

A cable carrying	<u>10</u>	Amperes	<u>12</u>	feet from standard compass	<u>8</u>	feet from steering compass
A cable carrying	<u>.5</u>	Amperes	<u>inside</u>	feet from standard compass	<u>inside</u>	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 Nil degrees on — course in the case of the standard compass and Nil degrees on — course in the case of the steering compass.

COOK, WELTON & GEMMELL, LTD.

W. Patterson

Builder's Signature.

Date Aug 30<sup>th</sup>/21

**GENERAL REMARKS.** This installation has been especially fitted and under a full load proved satisfactory

It is submitted that this vessel is eligible for THE RECORD. Elec. Light

Fee: 75-0-0 applied for 31-8-21 MR.

Kell 1/9/21

S. Sibby

Surveyor to Lloyd's Register of Shipping.

50,817.—1 transfer.

Committee's Minute



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