

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 on the Iron or Steel 1 "MICKLETON" Port belonging to Hull
 Reg. Book Built at Prosser By whom Cook, Walton & Gummel When built 1921
 Owners W. C. Bradly & 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 Wheelhouse 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 arc 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	18	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 ✓
Cables lead covered

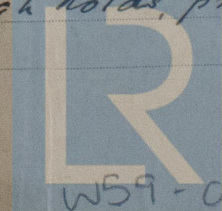
Joints in cables, how made, insulated, and protected

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 bolts

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 & FISHERWOOD LTD.

T.R. Peake

Electrical Engineers

Date 25/8/21

COMPASSES.

Per

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	Amperes	feet from standard compass	feet from steering compass
<u>10</u>	<u>12</u>	<u>8</u>	<u>8</u>
<u>.5</u>	<u>inside</u>	<u>inside</u>	<u>inside</u>
<u></u>	<u></u>	<u></u>	<u></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.

COOK, WELTON & GEMMELL, LTD.

W. Patterson

Builder's Signature.

Date Aug 30th/21

GENERAL REMARKS.

This installation has been specifically fitted and under a full load proved satisfactory

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

Rec. 75-0-0
applied for 31.8.21
M.R.

Recd
1/9/21

S. Lacey

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.