

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 41698

Port of Glasgow Date of First Survey 19. 4. 22 Date of Last Survey 23. 1. 22 No. of Visits 6
 No. in Reg. Book 36689 on the Iron or Steel S.S. Chilka Port belonging to Glasgow
 Built at Dumbarton By whom Messrs Denny Bros Ltd. When built 1922
 Owners The British Ind. St. Nav. Co. Owners' Address Messrs Denny Bros. Ltd. When fitted 1922
 Yard No. 1141 Electric Light Installation fitted by Messrs Denny Bros. Ltd.

TOTAL K.W. = 75.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2-38/40 B.H.P. Compound Vertical 2 crank enclosed steam engines, 100 lb. pressure, 400 R.P.M., with disc coupling, throttle governor, forced lubrication, coupled to 25KW. Compound dynamo, Multipolar type dynamo

Capacity of Dynamo 250 Amperes at 100 Volts, whether continuous or alternating current continuous

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

Position of Main Switch Board Engine Rm. Top having switches to groups 12 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each no Auxiliary Switchboard fitted

One 25 KW. Emergency Generator driven coupled to a 4-cylinder petrol engine. Situated on boat deck.

If fuses are fitted on main switch board to the cables of main circuit Yes and on each auxiliary ~~switch~~ ^{FUSE} 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 100 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

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 622 arranged in the following groups:—

Group	Description	Number of Lights	Candle Power	Current (Amperes)
A	lights each of		candle power requiring a total current of	Amperes
B	lights each of		candle power requiring a total current of	Amperes
C	lights each of		candle power requiring a total current of	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>4.6</u> Amperes
	<u>1</u> Side light with <u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>4.6</u> Amperes
	<u>6</u> Cargo lights of <u>5 lamps each</u>	<u>16</u>	candle power, whether incandescent or arc lights	<u>Incandescent</u>

If arc lights, what protection is provided against fire, sparks, &c. none Fitted.

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

DESCRIPTION OF CABLES.

Main cable carrying 250 Amperes, comprised of 61 wires, each .103" S.W.G. diameter, .5 square inches total sectional area
 Branch cables carrying 70 Amperes, comprised of 19 wires, each .064" S.W.G. diameter, .06 square inches total sectional area
 Branch cables carrying 60 Amperes, comprised of 19 wires, each .064" S.W.G. diameter, .06 square inches total sectional area
 Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .003 square inches total sectional area
 Cargo light cables carrying 4 Amperes, comprised of 70 wires, each .007 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead Covered Cable, & Lead Covered & Armoured in Machinery Spaces

Joints in cables, how made, insulated, and protected none.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances no 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 Lead Covered and Armoured surface

8200-851M



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

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

What special protection has been provided for the cables near boiler casings Asbestos covered wire

What special protection has been provided for the cables in engine room Asbestos covered wire

How are cables carried through beams Lead Bushes through bulkheads, &c. Watertight Glands

How are cables carried through decks through Deck Tubes

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 Lead Covered and Armoured

Are any lamps fitted in ~~coal bunkers~~ or spaces which may at times be used for cargo, ~~stores~~, or baggage Yes

If so, how are the lamp fittings and cable terminals specially protected Special fittings with Cast Iron Covers

Where are the main switches and fuses for these lights fitted Outside

If in the spaces, how are they specially protected _____

Are any switches or fuses fitted in 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 on 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.

Messrs Wm Denny Bros Ltd. Electrical Engineers Date 18-2-22

COMPASSES.

Distance between dynamo or electric motors and standard compass 120'

Distance between dynamo or electric motors and steering compass 120'

The nearest cables to the compasses are as follows:— Light fitted on Compass.

A cable carrying	<u>4</u>	Amperes	<u>12</u>	feet from standard compass	<u>12</u>	feet from steering compass
A cable carrying	<u>3</u>	Amperes	<u>in</u>	feet from standard compass	<u>in</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 any course in the case of the standard compass and Nil degrees on any course in the case of the steering compass.

FOR WILLIAM DENNY & BROTHERS LIMITED. Builder's Signature. Date 18/3/22

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under full working conditions and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD. Elec. Light. J. S. Rankin. Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 28 MAR 1922
Elec. Light.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



AC
27.3.22

2m.11.10—Transfer.