

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28638

Port of Hull Date of First Survey 28.5.15 Date of Last Survey 10.6.15 No. of Visits 8  
 No. in Reg. Book on the Iron or Steel W. M. J. "Asker" Port belonging to 10.175  
 Built at Hull By whom Messrs. G. B. & Co. Ld. When built 1915  
 Owners W. M. Owners' Address \_\_\_\_\_  
 Yard No. 615 Electric Light Installation fitted by Jalson, brass to When fitted 1915

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 Totally enclosed engines coupled direct to  
2 Compound wound dynamos  
 Capacity of Dynamo each 250 Amperes at 100 Volts, whether continuous or alternating current 500  
 Where is Dynamo fixed On Engine Platform Whether single or double wire system is used double  
 Position of Main Switch Board Aft Bulkhead by Pm having switches to groups A. B. C. D. E. F. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each 8 Way in lower bow space  
6 Way in Chubroom, 4 Way in Wheelers room, 9 Way in Engine Room  
7 " in Lobby aft.

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 154 arranged in the following groups:—  
 A Navyahin 25 lights each of Turris candle power requiring a total current of 15 Amperes  
 B abin + bow 50 lights each of " candle power requiring a total current of 34.8 Amperes  
 C Engine + Boiler 71 lights each of " candle power requiring a total current of 42.6 Amperes  
 D Wheelers lights each of " candle power requiring a total current of 15 Amperes  
 E Progen lights each of " candle power requiring a total current of \_\_\_\_\_ Amperes  
2 Mast head lights, with 1 lamps each, of 16 candle power requiring a total current of 1.2 Amperes  
2 Side lights, with 1 lamps each, of 1 x 32, 1 x 50 candle power requiring a total current of 2.95 Amperes  
2 Cargo lights of 8 x 50 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 Whulhouse

## DESCRIPTION OF CABLES.

Main cable carrying 250 Amperes, comprised of 37 wires, each .092 S.W.G. diameter, .3 square inches total sectional area  
 Branch cables carrying 42.6 Amperes, comprised of 37 wires, each .072 S.W.G. diameter, .15 square inches total sectional area  
 Branch cables carrying 34.8 Amperes, comprised of 19 wires, each .17 S.W.G. diameter, .046 square inches total sectional area  
 Leads to lamps carrying 6 Amperes, comprised of 1 wires, each .17 S.W.G. diameter, .00246 square inches total sectional area  
 Cargo light cables carrying 14 Amperes, comprised of Admiralty flex S.W.G. diameter, \_\_\_\_\_ square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Admiralty Putum  
 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 No  
 How are the cables led through the ship, and how protected Lead covered clipped (Admiralty)



**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

Are they in places always accessible Generally

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 -

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 All beams flushed through bulkheads, &c. Admurally glands

How are cables carried through decks Admurally deck tubes

Are any cables run through coal bunkers Yes or cargo spaces - or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected Lead covered

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 Admurally fitting

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

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 W.I. glands A.P.

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 Board

**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 A.P. cable 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.

J. G. Mackillop Electrical Engineers Date 11. 6. 15

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 96 ft.

Distance between dynamo or electric motors and steering compass 92 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>60</u>	Amperes	<u>12</u>	feet from standard compass	<u>8</u>	feet from steering compass
A cable carrying	<u>6</u>	Amperes	<u>1</u>	feet from standard compass	<u>1</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 \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the standard compass and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

J. G. Mackillop Builder's Signature. Date 28/7/15

**GENERAL REMARKS.** This installation of electric light has been fitted. The materials and workmanship are good. It has been tried under full working conditions & found satisfactory.

J. G. Mackillop  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Im. 9, 12.—Frankfor.

