

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 15586.

Port of *West Hartlepool* Date of First Survey *and* Date of Last Survey *while building* No. of Visits  
 No. in Reg. Book on the Iron or Steel S. S. *"War Sirocco"* Port belonging to *London*  
 Built at *West Hartlepool* By whom *Messrs Irvines Ltd* When built *1918*  
 Owners *The Shipping Controller* Owners' Address *West Hartlepool*  
 Yard No. *598* Electric Light Installation fitted by *Messrs Salconar, Cross & Co.* When fitted *1918*

*Newcastle-on-Tyne.*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

1.  $6\frac{1}{2} \times 6$  Open Type engine coupled direct to a compound wound multipolar dynamo. Steam pressure 100 lbs per sq. in. 360 R.P.M.  
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current *continuous*  
 Where is Dynamo fixed *In engine room*. Whether single or double wire system is used *double wire*  
 Position of Main Switch Board *In engine room*. having switches to groups *A, B, C, D & E* of lights, &c., as below  
 Positions of auxiliary <sup>fuse</sup> switch boards and numbers of <sup>fuses</sup> on each *3-way Section Boxes: - Saloon Passage 1, steam steer: 2, 10-way Fuse Boards: - Engine Room 1, Saloon Passage 1, 8-way Fuse Boards: - Wheel House 1, Accom: Aft 1, 2-way Dis Board: - Forecastle 1.*  
 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.  
 Are the fuses of non-oxidisable 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 *138* arranged in the following groups:—  

A Cargo	30	lights each of	16	candle power requiring a total current of	15	Amperes
B Accom	58	lights each of	16	candle power requiring a total current of	29	Amperes
C Wireless	—	lights each of	—	candle power requiring a total current of	15	Amperes
D Navigation	17	lights each of	16	candle power requiring a total current of	8.5	Amperes
E Eng. and Boiler Rooms	33	lights each of	16	candle power requiring a total current of	16.5	Amperes
1 Mast head light with	1	lamps each of	32	candle power requiring a total current of	1	Amperes
2 Side light with	1	lamps each of	32	candle power requiring a total current of	2	Amperes
5 Cargo lights of	6-16			candle power, whether incandescent or arc lights	<i>incandescent</i>	

  
 If arc lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed *On Bridge*

## DESCRIPTION OF CABLES.

Main cable carrying *84* Amperes, comprised of *19* wires, each *14* S.W.G. diameter, *.094* square inches total sectional area  
 Branch cables carrying *29* Amperes, comprised of *4* wires, each *16* S.W.G. diameter, *.022* square inches total sectional area  
 Branch cables carrying *15* Amperes, comprised of *7* wires, each *18* S.W.G. diameter, *.0125* square inches total sectional area  
 Leads to lamps carrying *5* Amperes, comprised of *1* wires, each *18* S.W.G. diameter, *.0018* square inches total sectional area  
 Cargo light cables carrying *3* Amperes, comprised of *114* wires, each *38* S.W.G. diameter, *.0032* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Lead covered and armoured and braided cables. Sinned copper conductors, insulated with pure para rubber, vulcanised india rubber, taped and braided.*

Joints in cables, how made, insulated, and protected

*no joints made.*

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 bunks, 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 *Armoured cables led on underside of decks, through beams and on Bullheads. all in sight.*



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 In open alleyways—armoured cables. Where exposed to weather—Carried through Galvanized Iron pipes.

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

What special protection has been provided for the cables near boiler casings armoured and braided.

What special protection has been provided for the cables in engine room armoured and braided.

How are cables carried through beams Bushed holes through bulkheads, &c. Watertight Glands

How are cables carried through decks Watertight Deck Poles

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 armoured cables led between beams

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 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.

Galvanar Conzallo Electrical Engineers Date 3.1.19

COMPASSES.

Distance between dynamo or electric motors and standard compass 90 ft

Distance between dynamo or electric motors and steering compass 85 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>8.5</u>	Ampères	<u>12</u>	feet from standard compass	<u>9</u>	feet from steering compass
A cable carrying	<u>.5</u>	Ampères	<u>3</u>	feet from standard compass	<u>3</u>	feet from steering compass
A cable carrying		Ampères		feet from standard compass		feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

The maximum deviation due to electric currents, etc., was found to be no degrees on all course in the case of the standard compass and no degrees on all course in the case of the steering compass.

IRVINE'S SHIP BUILDING & ENGINE BOOKS CO., LTD.

J.M.O. Amis Builder's Signature. Date 10th January 1919

GENERAL REMARKS.

The above installation has been fitted in accordance with the requirements of the Rules & worked satisfactorily rendering the vessel eligible in my opinion to have record of Electric Light in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. Elec. light. J.W.D. 18/1/19

W. Knight Surveyor to Lloyd's Register of Shipping.

Committee's Minute.

Im. 5.13.—Transfer.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.