

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 15318.

Port of WEST HARTLEPOOL Date of First Survey and Date of Last Survey while Building No. of Visits 1
 on the Iron or Steel S. S. Clepham Port belonging to new Palmleaf
 Built at Wish Aulley-ool By whom Mr. Jones & Co. - S.S. to Tol When built 1916
 Owners Lane & Macandrew & Co. Owners' Address London
 Card No. 557 Electric Light Installation fitted by Falmer, Bros & Co. When fitted 1916

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 Totally enclosed eng. by Brown & Lenthall to compound dyno by belt, constructed to
1 open type eng. to compound wound dyno.

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

Where is Dynamo fixed Room Top Plat. Submarine Whether single or double wire system is used double

Position of Main Switch Board New dynamo having switches to groups A. B. C. D. E. of lights, &c., as below

Positions of auxiliary boards and numbers of fuses on each 1+3 + 1+7 Way in Foreman's Mess
10 Way in Steward's Cabin, 1+6 + 1+9 Way in Midship's Cabin, 1+3 + 1+9 Way in Passage Aft
9 - 2 - Eng. Room

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 312 arranged in the following groups :-

A Forward	76 lights each of	16	candle power requiring a total current of	44.4	Amperes
B Midship	21 lights each of	16	candle power requiring a total current of	11.7	Amperes
C Aft	98 lights each of	16	candle power requiring a total current of	46.8	Amperes
D Aft	80 lights each of	16	candle power requiring a total current of	41.7	Amperes
E Eng. room	37 lights each of	16	candle power requiring a total current of	15	Amperes
2 Mast head lights with, 1 lamp each of		32	candle power requiring a total current of	2.4	Amperes
2 Side lights with, 1 lamp each of		32	candle power requiring a total current of	2.4	Amperes
6 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 Steward's Cabin

DESCRIPTION OF CABLES.

Main cable carrying 250 Amperes, comprised of 61 wires, each 15 S.W.G. diameter, .245 square inches total sectional area

Branch cables carrying 44.4 Amperes, comprised of 19 wires, each 17 S.W.G. diameter, .046 square inches total sectional area

Branch cables carrying 46.8 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 18 S.W.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying 14.4 Amperes, comprised of 7 wires, each 17 S.W.G. diameter, .017 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper, zinc + vulcan J.R. taped + lead covered

Joints in cables, how made, insulated, and protected

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

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 In iron pipe



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 & Armour

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 Fibre bushes through bulkheads, &c. W. J. Blunts

How are cables carried through decks Sink tubes

Are any cables run through coal bunkers No or cargo spaces No or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected Imm. pipe

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 Special guarded fittings

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

If in the spaces, how are they specially protected No

Are any switches or fuses fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable How fixed W. J. sockets

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 in 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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion No

How are the lamps specially protected in places liable to the accumulation of vapour or gas Gas tight fittings

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 2500 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.

Falconer, Cross & Co.

Electrical Engineers

Date Dec 14 1916

COMPASSES.

Distance between dynamo or electric motors and standard compass 180 ft.

Distance between dynamo or electric motors and steering compass 175 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>11.7</u>	Amperes	<u>12</u>	feet from standard compass	<u>8</u>	feet from steering compass
A cable carrying	<u>1</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 4.10 degrees on steering compass course in the case of the standard compass and 4.10 degrees on steering compass course in the case of the steering compass.

FOR IRVINE'S SHIP BUILDING & DRY DOCKS CO., LIMITED,

A. B. Gordon

Builder's Signature.

Date 31st Dec 1916

GENERAL REMARKS.

MANAGING DIRECTOR.

The above installation has been carried out in accordance with the Requirements of the Rules & the Specifications & worked satisfactorily rendering this Vessel Eligible in my opinion to have the record of Electric Light in the Register Book.

W. J. Blunts

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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