

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 489

Port of Huddersburgh Date of First Survey 1st July Date of Last Survey 12th July 1912 No. of Visits 1
 No. in Reg. Book 55 on the Iron or Steel "Hampden" Port belonging to Huddersburgh
 Built at Stackton By whom Messrs. Craig Taylor & Co. When built 1912
 Owners H. V. Kere Owners' Address Huddersburgh
 Yard No. 151 Electric Light Installation fitted by J. Holmes & Co. When fitted 1912

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 8" x 6" open type Engine Coupled to 1-4 pole Castle Dynamo.
 Capacity of Dynamo 125 Amperes at 100 Volts, whether continuous or ~~alternating~~ current
 Where is Dynamo fixed on Starting Platform in Eng. Rm. Whether single or double wire system is used double
 Position of Main Switch Board beside Dynamo having switches to groups A. B. C. D. E. of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each A. 3-way D.P. Fuse Box in Mess Rm. A1. 4-way in Chart Rm. A2. 6-way in Mess Room. A3. 4-way in Mess Rm. "Forward". B. 6-way in Eng. Rm. B1. 4-way in 2nd Eng. Rm. C. 6-way in Eng. Rm. D. 3-way in Engine Room. E. 3-way in Eng. Room.
 If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits yes
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 50% per cent over the normal current
 Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases Porcelain & Slate

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

A	50	lights each of	10	candle power requiring a total current of	28	Amperes
B	34	lights each of	16	candle power requiring a total current of	18.5	Amperes
C	18	lights each of	16	candle power requiring a total current of	10.0	Amperes
D	24	lights each of	16	candle power requiring a total current of	13.5	Amperes
E	30	lights each of	16	candle power requiring a total current of	16.9	Amperes
	2	Mast head light with	1	lamps each of	32	Amperes
	2	Side light with	1	lamps each of	32	Amperes
	9	Cargo lights of	6 x 16	candle power, whether incandescent or arc lights	incandescent	

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

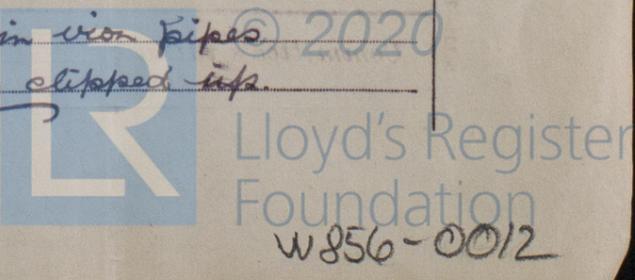
Where are the switches controlling the masthead and side lights placed in Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 93 Amperes, comprised of 37 wires, each 16 L.S.G. diameter, .114 square inches total sectional area
 Branch cables carrying 32.5 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .034 square inches total sectional area
 Branch cables carrying 19 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .0125 square inches total sectional area
 Leads to lamps carrying .56 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 3.36 Amperes, comprised of 3 wires, each 20 L.S.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper, pure para rubber, vulc. rubber, taped, braided & compounded
 Joints in cables, how made, insulated, and protected None
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 none
 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 Tween Decks & holds in iron pipes helv. spaces. Arm-Braided. Accomodation, L.C. wire clipped up



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible yes. Excepting holds when cargo is in.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture. L. C. size

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Arm^d Braided

What special protection has been provided for the cables near boiler casings — ditto

What special protection has been provided for the cables in engine room — ditto

How are cables carried through beams bushed with fibre through bulkheads, &c. Stuffing glands

How are cables carried through decks in pipes flanged & made watertight

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 in iron pipes.

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 in brass W.T. sockets lamps being portable

Where are the main switches and cut outs for these lights fitted in engine room

If in the spaces, how are they specially protected none in spaces

Are any switches or cut outs fitted in bunkers no

Cargo light cables, whether portable or permanently fixed portable How fixed socket connections

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

The installation is supplied with a voltmeter and an amperemeter, fixed main Sw. Board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, cut outs, 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 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile after 24 hours' immersion in seawater.

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. H. Holmes. C. Electrical Engineers Date 29/7/12

COMPASSES.

Distance between dynamo or electric motors and standard compass approx 80 ft.

Distance between dynamo or electric motors and steering compass 180 feet.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>12</u> Amperes	<u>10</u> feet from standard compass	<u>210</u> feet from ^{AFT} steering compass
A cable carrying	<u>2-24</u> Amperes	<u>4</u> feet from standard compass	<u>6</u> feet from steering compass on bridge
A cable carrying	<u>.56</u> Amperes	<u>for lighting</u> feet from standard compass	<u>for lighting</u> 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 nothing degrees on — course in the case of the standard compass and nothing degrees on — course in the case of the steering compass.

For CRAIG TAYLOR & CO. LIMITED,

William Young DIRECTOR, Builder's Signature. Date August 2nd 1912

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules and examined under full working conditions with satisfactory results. It is submitted that this vessel is eligible for THE RECORD. Elec Light.

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

Committee's Minute JM

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.