

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 19304

Port of *Newport Mon* Date of First Survey *14 Aug* Date of Last Survey *18 Apr 1918* No. of Visits *8*
 No. in Reg. Book on the *Iron* or Steel *H M Lng* *Damby* Port belonging to
 Built at *6 hrs low* By whom *Edward Finch & Co (1916) Ltd* When built *1918*
 Owners *The Admiralty* Owners' Address
 Yard No. *360* Electric Light Installation fitted by When fitted *9.9.1918*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Alternator of 29 KW capacity coupled to same shaft & driven by de Laval steam turbine *D.C. Generator of 12 KW capacity*

Capacity of Dynamo (Continued) Amperes at *5* Volts, *whether continuous or alternating current* *Amperes 220 Volts*
 Where is Dynamo fixed *E.R. top platform, port side* Whether single or double wire system is used *Double wire*

Position of Main Switch Board *on after bulkhead in E.R.* having switches to groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *Navigation (in wheelhouse on bridge) 11 switches*
including 1 "Mast" switch. Engine Room - 4 switches (2 for stroke hold), all other lights
controlled by local switches

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 cessel 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 *Yes*

Total number of lights provided for *108* arranged in the following groups:— (including 48 cluster lights)

A E.R. <i>Shed</i> 23 lights each of 16 candle power requiring a total current of 15 Amperes
B Forward Room 26 lights each of 16 candle power requiring a total current of 17 Amperes
C Navigation 12 lights each of <i>various</i> candle power requiring a total current of 5 1/2 Amperes
D Propeller lights each of — candle power requiring a total current of 15 Amperes
E Wireless lights each of — candle power requiring a total current of 5 Amperes
F 2 Mast head light with 1 lamps each of 2 1/2 candle power requiring a total current of 2 1/2 Amperes
2 Side light with 1 lamps each of 5 candle power requiring a total current of 4 Amperes
8 5 Cargo lights of each of 300 candle power, whether incandescent or arc lights <i>Inc</i>

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

Where are the switches controlling the masthead and side lights placed

In wheelhouse on bridge

DESCRIPTION OF CABLES.

Main cable carrying 120 Amperes, comprised of 19 wires, each 1/14 L.S.G. diameter, .04593 square inches total sectional area
Branch cables carrying 17 Amperes, comprised of 7 wires, each 1/8 L.S.G. diameter, .01246 square inches total sectional area
Branch cables carrying 15 Amperes, comprised of 7 wires, each 1/8 L.S.G. diameter, .01246 square inches total sectional area
Leads to lamps carrying 3 Amperes, comprised of 1 wires, each 1/17 L.S.G. diameter, .00246 square inches total sectional area
Cargo light cables carrying 12 Amperes, comprised of 3 wires, each 1/8 L.S.G. diameter, .01533 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Admiralty Quality

Lead covered cables of 2,500 Megohm Grade

Joints in cables, how made, insulated, and protected

20 joints

Are all the joints of cables thoroughly soldered, resin only having been used as a flux *No joints* 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 (Admiralty quality) passing through bulkheads with W.T. glands, Lead wire protection in bunker space

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 No special protection other than the extra thickness of lead sheathing

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Clear of any great heat

What special protection has been provided for the cables near boiler casings Clear of boiler casing

What special protection has been provided for the cables in engine room No special protection, but Admiralty practice

How are cables carried through beams Been drilled through bulkheads, &c. Brass W.T. glands

How are cables carried through decks W.T. Deck plate

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

If so, how are they protected With sheet metal plate

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 cut outs for these lights fitted —

If in the spaces, how are they specially protected No

Are any switches or cut outs fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable cables from Plug Box fixed position fitted near trackway

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 Yes

The installation is — supplied with a voltmeter and Yes an amperemeter, fixed on main switchboard

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 2.500 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.

FOR TROUP, CURTIS & Co. Ltd. A.J. Lewis and Electrical Engineers Date 10/9/1918

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 ft

Distance between dynamo or electric motors and steering compass 95 ft

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
60	12	10	10
17	12	10	10
25	1	1	1

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 of — course in the case of the standard compass and — degrees on — course in the case of the steering compass.

FOR EDWARD FINCH & Co. (1918) LIMITED.

John W. White Builder's Signature. Date 25th Sept 1918

GENERAL REMARKS.

The Electric Light installation has been fitted in accordance with the Rules, found satisfactory on trial. Vessel is now eligible for Record of Electric Light. It is submitted that this vessel is eligible for THE RECORD, ELEC. LIGHT

10-10-18 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute



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