

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 21462

Port of Hull Date of First Survey Jun 28th Date of Last Survey July 9th No. of Visits 4
 No. in Reg. Book 342 on the Iron or Steel Se Se Retriever Port belonging to London
 Built at Goole By whom Goole S. B. R. Co^{ld} When built 1909
 Owners West Coast of America Telegraph Co Owners' Address London
 Yard No. 124 Electric Light Installation fitted by Messrs J. H. Holmes Co When fitted 1909

DESCRIPTION OF DYNAMO, ENGINE, ETC.

4 1/2" x 4" Open type engine "B" Gov. Hooked to 80 lb 1" Press coupled direct to 8/5" W type "Castle" dynamo 400 Revs.
 Capacity of Dynamo 28 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Starting Platform Whether single or double wire system is used double
 Position of Main Switch Board Next dynamo having switches to groups A. B. C. of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One 3 Way D.P. 5 Amp. Fuseboard fixed in 2nd books bulk
One 9 Way D.P. 5 Amp. Fuseboard fixed in Pantry
3 - - - - - Engine Room with D.P. switches below
 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 25 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 38 arranged in the following groups:—

A Forward	6 lights each of	16	candle power requiring a total current of	3.36	Amperes
B Midships	26 lights each of	16	candle power requiring a total current of	14.56	Amperes
C Engine Room	6 lights each of	16	candle power requiring a total current of	3.36	Amperes
D	lights each of		candle power requiring a total current of		Amperes
E	lights each of		candle power requiring a total current of		Amperes
Must head light with	lamps each of		candle power requiring a total current of		Amperes
Side light with	lamps each of		candle power requiring a total current of		Amperes
Cargo lights of			candle power, whether incandescent or arc lights		

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

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying 21.28 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area
 Branch cables carrying 14.56 Amperes, comprised of 7 wires, each 17 L.S.G. diameter, .017 square inches total sectional area
 Branch cables carrying 3.36 Amperes, comprised of 7 wires, each 2 1/2 L.S.G. diameter, .005 square inches total sectional area
 Leads to lamps carrying .56 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .001 square inches total sectional area
 Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Fanned copper, Pure Para rubber, Kals rubber, taped & Braided - compounded overall. Lb in bulk in re. + special heat resisting cable used in Engine room + storeroom

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

Are there any joints in or branches from the cable leading from dynamo to main switch board

How are the cables led through the ship, and how protected In min tubes



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 *Ann!*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *u*

What special protection has been provided for the cables near boiler casings *u*

What special protection has been provided for the cables in engine room *u*

How are cables carried through beams *Bushes* through bulkheads, &c. *Shipping funds*

How are cables carried through decks *Deck tubes*

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

If so, how are they protected *Iron pipes*

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 *_____*

Are any switches or cut outs fitted in bunkers *No*

Cargo light cables, whether portable or permanently fixed *_____* 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 *_____*

The installation is *_____* supplied with a voltmeter and *not* an amperemeter, fixed *in Main 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 & Co. Electrical Engineers Date *July 8th 1909.*

COMPASSES.

Distance between dynamo or electric motors and standard compass *46 ft.*

Distance between dynamo or electric motors and steering compass *42 "*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>5.6</i>	Amperes	<i>1</i>	feet from standard compass	<i>5</i>	feet from steering compass
A cable carrying	<i>14.56</i>	Amperes	<i>24</i>	feet from standard compass	<i>20</i>	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

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.

Builder's Signature. Date

GENERAL REMARKS. *This vessel has been fitted with electric light installation as above, and tested & found in order except the leads to binisale lamps, these are to be connected & compasses adjusted at London.*

I have submitted that this vessel is eligible for notation of Elec. light. J. H. Holmes & Co. *James Barclay* Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

