S.S. Australasian

FOR ENCLOSURE TO

Lloyds Glasgow

From J. H. HOLMES & CO.

FRI. 16 AUG 1895

Received at London Office 18

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 13824.

Port

Port of Glasgow Date of First Survey Date of Last Survey No. of Visits

No. in Reg. Book 1031 on the Iron ~~or Steel~~ S.S. Australasian Port belonging to Aberdeen

Built at Glasgow By whom R. Napier & Sons When built 1884

Owners Messrs G. Thompson & Co Owners Address Aberdeen

Yard No. 391 Electric Light Installation fitted by J. H. Holmes & Co When fitted 1895

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 8x8" Open Auto Engine coupled direct to No 12 RU Compound wound Dynamo.

Capacity of Dynamo 215 Amperes at 60 Volts, whether continuous ~~or alternating~~ current Continuous

Where is Dynamo fixed Engine room, Middle platform, port side

Position of Main Switch Board Engine room having switches to groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each, 1 Audy S&T board with Switches

2 Audy S board in Saloon, Pantry with Switches respectively,

2 do Port & Starbd alleyway.

If cut outs are fitted on main switch board to the cables of main circuit Yes. and on each auxiliary switch boards 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 —

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases Yes,

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

1	Forecastle + 3rd Class	all 16cp	candle power requiring a total current of	2.76	Amperes
2	Captain + Chief Off lights each of				
3	Starbd alleyway berths				
4	Port do do lights each of	Except 5	candle power requiring a total current of	2.53	Amperes
5	Refrig Engine lights each of		candle power requiring a total current of	2.44	Amperes
6	Engine room, berth Port	Cargo	candle power requiring a total current of	10	Amperes
7	Saloon Sleeping lights each of		candle power requiring a total current of	20	Amperes
8	do do lights each of Starbd	Lantern	candle power requiring a total current of	1.72	Amperes
9	Bruisie Saloon lights each of		candle power requiring a total current of	1.44	Amperes
10	Saloon lights each of		candle power requiring a total current of	3.0	Amperes
—	Mast 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
5	Cargo lights of 200	Each	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 —

DESCRIPTION OF CABLES.

Main cable carrying	Amperes, comprised of	wires, each	L.S.G. diameter,		square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	L.S.G. diameter,		square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	L.S.G. diameter,		square inches total sectional area
Leads to lamps carrying	Amperes, comprised of	wires, each	L.S.G. diameter,		square inches total sectional area
Cargo light cables carrying	Amperes, comprised of	wires, each	L.S.G. diameter,		square inches total sectional area

1000 Amps per Sq Inch

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper, Pure Para rubber 2 coats vulcanising rubber J.R. proofed tape. The whole vulcanised together braided, & compounded.

Joints in cables, how made, insulated, and protected

Twisted joints, soldered, & protected & insulated with pure rubber. Okonite tape & black tape

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 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 Casing & Pipes in Tween decks.

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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Yes. Fixed to beams by clips.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Strong wood casing fixed to ceiling.

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 Special Teak casing.

How are cables carried through beams Drilled holes & [illegible] *through bulkheads, &c.* W.T. glands.

How are cables carried through decks Tubes.

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

If so, how are they protected Iron piping.

Are any lamps fitted ~~*in coal bunkers*~~ *or spaces which may at times be used for cargo,* ~~*stores*~~ *or baggage* 3rd Class Quarters

If so, how are the lamp fittings and cable terminals specially protected ~~Yes~~ The pipe is fixed into fitting & face of glass is covered up by strong [illegible] metal cover.

Where are the main switches and cut outs for these lights fitted In Forecastle fixed on special brds and switch to alternate lts

~~*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 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 Yes

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 installation is is *supplied with a voltmeter and* not *an amperemeter, fixed* in Engine room

The copper used is guaranteed to have a conductivity of 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2000 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.,
J. L. Reed Cooper
Manager for Scotland

Electrical Engineers *Date* July 1895

COMPASSES.

Distance between dynamo or electric motors and standard compass abt 70ft

Distance between dynamo or electric motors and steering compass abt 74ft

The nearest cables to the compasses are as follows:—

A cable carrying	16	*Amperes*	33	*feet from standard compass*	42	*feet from steering compass*
A cable carrying	16	*Amperes*	32·6	*feet from standard compass*	41	*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.*

Fitted by Owners *Builder's Signature* *Date* 14 Aug 95

GENERAL REMARKS.

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

Committee's Minute

REPORT FORM No. 13.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.