

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11659

Port of Greenock Date of First Survey 20th January Date of Last Survey 5th March No. of Visits 17
 No. in Reg. Book 57 on the Iron or Steel Screw Steamer "Alliata" (Twin) Port belonging to Greenock
 Built at Greenock By whom Scott & Co. When built 1897
 Owners Adelaide S.S. Co. (Lim^d) Owners Address Adelaide S.S.
 Yard No. 344 Electric Light Installation fitted by THE BRUSH ELECTRICAL ENGINEERING COMPANY, LIMITED When fitted Jan. Feb/97

DESCRIPTION OF DYNAMO, ENGINE, ETC.

"Brush-Victoria" 4-pole dynamo, coupled direct to "Brush-Talbot" single cylinder steam engine 9" X 8"
 Capacity of Dynamo 230 Amperes at 55 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed in main engine room
 Position of Main Switch Board above ds. having switches to groups Ten of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 4 on main deck, 2 stem, 2 in engine dept & 1 in fore-castle

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 no 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 yes

Total number of lights provided for 184 arranged in the following groups:—

A	Main deck	lights each of	16	candle power requiring a total current of	66	Amperes
B	Stowage	lights each of	16	candle power requiring a total current of	20	Amperes
C	Stem	lights each of	16	candle power requiring a total current of	30	Amperes
D	Fore-castle	lights each of	16	candle power requiring a total current of	10	Amperes
E	Dark Room	lights each of	16	candle power requiring a total current of	12	Amperes
	one Mast head light with	1 ^{double filament} lamps each of	32	candle power requiring a total current of	2	Amperes
	2. Side light with	2 ^{double filament} lamps each of	32	candle power requiring a total current of	4	Amperes
	4	Cargo lights each of	6, 16 & 4	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 in wheel house

DESCRIPTION OF CABLES.

Main cable carrying 186 Amperes, comprised of 19 wires, each 11 L.S.G. diameter, .2052 square inches total sectional area
 Branch cables carrying 20 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, .0358 square inches total sectional area
 Branch cables carrying 20 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .0229 square inches total sectional area
 Leads to lamps carrying 4 Amperes, comprised of 3 wires, each 18 L.S.G. diameter, .0055 square inches total sectional area
 Cargo light cables carrying 6 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .0072 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

On open decks and in engine dept. Pure vulcanizing Rubber may taped - insulated together and lead covered, - other connections same insulation but not lead cov'. All buried in teak wood casing
 Joints in cables, how made, insulated, and protected with 6 layers pure rubber the 2 of thickness vulcanized tape and used with compound

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 through beams etc in separate fibrous insulating tubes. Through decks in iron tubes with insulating rubber each end.

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 *sheathed in lead*

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

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

What special protection has been provided for the cables in engine room *" " & tank casing*

How are cables carried through beams *in pipe tubes* through bulkheads, &c. *in flange & frames*

How are cables carried through decks *in iron tubes with insulation supplied each inch.*

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 *by strong wood casing of teak*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage

If so, how are the lamp fittings and cable terminals specially protected *with detachable screwed metal cap.*

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

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers

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

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 supplied with a voltmeter and an amperemeter, fixed

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 *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.

THE BRUSH ELECTRICAL
ENGINEERING COMPANY, LIMITED

Electrical Engineers

Date

March 27th

COMPASSES.

Distance between dynamo or electric motors and standard compass

62 ft

Distance between dynamo or electric motors and steering compass

60 ft.

The nearest cables to the compasses are as follows:—

A cable carrying *6* Amperes *4* feet from standard compass feet from steering compass

A cable carrying *6* Amperes feet from standard compass 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 *nil* degrees on course in the case of the standard compass and degrees on course in the case of the steering compass.

for Scott & Co.
J. A. Cairns

Builder's Signature

Date

30th March 1897

GENERAL REMARKS.

The Electric Lighting Installation in this vessel has been fitted under our inspection & to our satisfaction.

Ed Phillips, A.B. Heron.
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

This installation appears to be in accordance with the Rules

Soal
SA

24/4/97