

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 804.

Port of Adelaide S.A. Date of First Survey 12th July Date of Last Survey 22nd Nov. No. of Visits 12
 No. in Reg. Book on the ~~Steel~~ Steel S.S. "EURIMBLA" Port belonging to Sydney N.S.Wales.
 Built at Osborne Port Adelaide S.A. By whom Poole & Steele. When built 1921-11.
 Owners Commonwealth Govt. Line Owners' Address 447 Collins St. Melbourne.
 Yard No. 1 Electric Light Installation fitted by Newton Mc Laren Ltd When fitted 1921.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Vertical Single Cylinder open type Engine direct coupled to Compound wound four pole Dynamo; Dia of Cylinder 4" x 4 1/2" Stroke.

Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Star side Engine room B Platform Whether single or double wire system is used Double wire.

Position of Main Switch Board Aft Bulkhead Engine room having switches to groups A.B.C.D.E.F.G of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Fore peak no switches Saloon Pantry no switches

Passage outside wireless room no switches; Chart room 8 switches Engine room 12 Cables - 3 switches, Crews mess no switches, Crews accommodation no switches

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 50% per cent over the normal current

Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 123 Points 177 lights arranged in the following groups :-

| | | | | | | | |
|---|------------------------|----|----------------|----|--|--------------|---------|
| A | Fore peak | 7 | lights each of | 16 | candle power requiring a total current of | 1 1/2 | Amperes |
| B | Saloon | 31 | lights each of | 16 | candle power requiring a total current of | 6 1/2 | Amperes |
| C | Crews Accom | 22 | lights each of | 16 | candle power requiring a total current of | 3 1/2 | Amperes |
| D | Engineers Accom | 18 | lights each of | 16 | candle power requiring a total current of | 4 | Amperes |
| E | Machinery spaces | 31 | lights each of | 16 | candle power requiring a total current of | 19 | Amperes |
| F | 2 Mast head light with | 2 | lamps each of | 32 | candle power requiring a total current of | 3 | Amperes |
| | 2 Side light with | 2 | lamps each of | 32 | candle power requiring a total current of | 3 | Amperes |
| | 10 Cargo lights of | 6 | each | 96 | candle power, whether incandescent or arc lights | Incandescent | |
| G | Wireless | 15 | Amperes | | | | |

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

Where are the switches controlling the masthead and side lights placed On Switchboard in Chart room.

DESCRIPTION OF CABLES.

Main cable carrying 81 Amperes, comprised of 19 wires, each .083 S.W.G. diameter, .094 square inches total sectional area

Branch cables carrying 18 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, .0070 square inches total sectional area

Branch cables carrying 10 Amperes, comprised of 1 wires, each .064 S.W.G. diameter, .0032 square inches total sectional area

Leads to lamps carrying 3 Amperes, comprised of 1 wires, each .044 S.W.G. diameter, .0022 square inches total sectional area

Cargo light cables carrying 36 Amperes, comprised of 7 wires, each .064 S.W.G. diameter, .022 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All cables in Engine room, Boiler room, Cargo spaces, and where exposed are C.M.A. 600 Meg. Lead covered and braided; all others C.M.A. 600 Meg. rubber braided Lead covered

Joints in cables, how made, insulated, and protected Joints in main cables are in water tight boxes in cabins by standard porcelain boxes.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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 Steel armoured cables clipped to longitudinal beams in protected positions and where exposed above shelter decks in water pipes

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. All Cables Lead Covered And where liable to damage armoured in Iron Piping

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead Covered and Armoured.

What special protection has been provided for the cables near boiler casings Do. - Do.

What special protection has been provided for the cables in engine room Do. - Do.

How are cables carried through beams Lead bushed holes through bulkheads, &c. Packed glands.

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

If so, how are they protected Lead Covered and Armoured

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 fuses for these lights fitted ✓

If in the spaces, how are they specially protected ✓

Are any switches or fuses fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable flexibles. How fixed Clipped to Bulkheads

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 ✓

Is the installation supplied with a voltmeter Yes, and with an amperemeter Yes, fixed On Switchboard

VESSELS BUILT FOR CARRYING PETROLEUM.

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

Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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 **NEWTON, McLAREN LIMITED,**
Managing Director

Electrical Engineers Date Nov 24th 1921

COMPASSES.

Distance between dynamo or electric motor and standard compass Approximately 100 ft

Distance between dynamo or electric motor and steering compass Do. 90"

The nearest cables to the compasses are as follows:—

| | | | | | |
|------------------|--------------------------------|---------------------|----------------------------|-----------|----------------------------|
| A cable carrying | <u>5</u> Amperes | <u>for lighting</u> | feet from standard compass | <u>5</u> | feet from steering compass |
| A cable carrying | <u>7</u> Amperes | <u>10</u> | feet from standard compass | <u>5</u> | feet from steering compass |
| A cable carrying | <u>Wireless supply</u> Amperes | <u>20</u> | feet from standard compass | <u>15</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 no apparent deviation course in the case of the standard compass and no apparent deviation course in the case of the steering compass.

COLE & STEEL, LTD.

Arthur H. Poole Builder's Signature. Date Nov 24th 1921

GENERAL REMARKS.

This Electric Installation has been fitted in accordance with the Rules listed and found satisfactory

It is submitted that this vessel is eligible for
THE RECORD, Elec. Light
paid 7. 2. 22
666

L. G. Abbott
23/1/22
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. FEB. 3 1922

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

2nd. 11. 20. Transfer.