

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 804.

Port of Adelaide S.A. Date of First Survey 13th July Date of Last Survey 22nd Nov. No. of Visits 12
 No. in on the ~~Steel~~ SS "EURIMBLA" Port belonging to Sydney N.S.Wales
 Reg. Book 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 Cylinders 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 C.S. 3 switches, Crew mess no switches, Crew 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 Space 31 lights each of 16 candle power requiring a total current of 18 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,

Electrical Engineers

Date *Nov. 24th 1921*

COMPASSES.

Distance between dynamo or electric motors and standard compass

Approximately 100 ft.

Distance between dynamo or electric motors and steering compass

Do. 90"

The nearest cables to the compasses are as follows:—

A cable carrying *5* Amperes *for lighting* feet from standard compass *5* feet from steering compass

A cable carrying *4* Amperes *10* feet from standard compass *5* feet from steering compass

A cable carrying *Wireless supply* Amperes *20* feet from standard compass *15* 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.

POOLE & 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

Dec. = £12.10.0

paid 7.2.22

THE RECORD.

Elec. Light

23/1/22

W. A. Fairclough

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. FEB. 3 1922

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.