

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28677.

Port of Glasgow Date of First Survey 17th Jan Date of Last Survey 18th March No. of Visits 9
 No. in on the Iron or Steel S/S "Paritutu" Port belonging to New Plymouth NZ
 Reg. Book Built at Parley By whom Fleming Ferguson & Co When built 1910
 Owners New Plymouth Harbour Board Owners' Address New Zealand
 Yard No. 389 Electric Light Installation fitted by Charles E O When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

The enclosed type single cylinder engine coupled direct to compound dynamo.

Capacity of Dynamo 50 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed in Engine Room Whether single or double wire system is used Double

Position of Main Switch Board beside dynamo having switches to groups A.B.C.D.E. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each One in Engine room 8 switches.

If cut outs are fitted on main switch board to the cables of main circuit No 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 tin and constructed to fuse at an excess of 100 per cent over the normal current

Are all cut outs fitted in easily accessible positions yes Are the fuses of standard dimensions Wire 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 2 arcs, 7 inc. 36-16 c.p. and 4-8 c.p. arranged in the following groups:—

A Forward Arc 1 light each of 2000 candle power requiring a total current of 9 Amperes

B Cluster 4 lights each of 32 candle power requiring a total current of 5 Amperes

C aft Arc 1 light each of 2000 candle power requiring a total current of 9 Amperes

D Accommodation 11 lights each of 16 candle power requiring a total current of 6 Amperes

E Engine Room 32 lights each of 32 and 4 and 8 candle power requiring a total current of 5 Amperes

1 Mast head light with 1 lamp each of 32 candle power requiring a total current of 1.1 Amperes

2 Side light with 1 lamp each of 32 candle power requiring a total current of 2.2 Amperes

3 Deck 2 lights 2 of 2000 + 1 of 128 candle power, whether incandescent or arc lights 2 arcs + 1 Cluster

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

Where are the switches controlling the masthead and side lights placed in Engine room.

DESCRIPTION OF CABLES.

Main cable carrying 47 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0600 square inches total sectional area

Branch cables carrying 9 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0124 square inches total sectional area

Branch cables carrying 13 Amperes, comprised of 7 wires, each 17 L.S.G. diameter, .0169 square inches total sectional area

Leads to lamps carrying 5 Amperes, comprised of 1 wire, each 18 L.S.G. diameter, .0078 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.

Pure vulcanized India Rubber, J.R. Coated tape banding and armour of galvanized iron wire or lead covered.

Joints in cables, how made, insulated, and protected No joints

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 Armoured wire in Engine room, boiler room &c and lead covered wire in accommodation.

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 *Armour.*

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

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

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

How are cables carried through beams *armoured.* through bulkheads, &c. *in glands.*

How are cables carried through decks *in 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 *Armour.*

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

If so, how are the lamp fittings and cable terminals specially protected *guarded.*

Where are the main switches and cut outs for these lights fitted *Engine room*

If in the spaces, how are they specially protected *no*

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

Cargo light cables, whether portable or permanently fixed *portables* How fixed *with plug sockets (Press)*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *Double.*

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 *—* an amperemeter, fixed *on Switchboard*

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. Charters, Glasgow. Electrical Engineers

Date *15th March 1910.*

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass *abt 70ft.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>9</i>	Amperes	<i>✓</i>	feet from standard compass	<i>abt 20</i>	feet from steering compass
A cable carrying	<i>1.6</i>	Amperes	<i>✓</i>	feet from standard compass	<i>4</i>	feet from steering compass
A cable carrying	<i>.56</i>	Amperes	<i>✓</i>	feet from standard compass	<i>in</i>	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power *both*

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 Fleming & Ferguson, Ltd.

Builder's Signature. Date *29/3/10*

GENERAL REMARKS.

Installation has been fitted on board under special survey & examined under full working & found satisfactory

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

W. Gordon Mucliesi

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

Committee's Minute

GLASGOW 30 MAR. 1910

Elec. light.



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.