

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1922

Port of *Kobe* Date of First Survey *26<sup>th</sup> Aug* Date of Last Survey *20<sup>th</sup> Oct 1916* No. of Visits *10*  
 No. in on the *Iron or Steel* *S. S. "Siam Maru"* Port belonging to *Osaka*  
 Reg. Book Built at *Kobe* By whom *The Kawasaki Dry Dock Co. Ltd.* When built *1916*  
 Owners *The Osaka Shosen K. Kaisha* Owners' Address *Osaka*  
 Yard No. *384* Electric Light Installation fitted by *The Kawasaki Dry Dock Co. Ltd.* When fitted *1916*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

The generating set consists of an automatic cut off vertical single cylinder enclosed engine, capable of working with 7 K.W. open 4 pole compound wound dynamo.  
 Capacity of Dynamo *7 K.W.* *70* Amperes at *100* Volts, whether continuous or alternating current ☒

Where is Dynamo fixed *engine room.* Whether single or double wire system is used ☒

Position of Main Switch Board *engine room.* having switches to groups *5* switches of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *Distribution box with a switch:— 1 on lower bridge; 4 on shelter deck; 2 on upper deck; 2 in engine & boiler room.*

If cut outs 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 cessel 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 *100* 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 *118* arranged in the following groups:—

A *62* lights each of *5, 16, & 32* candle power requiring a total current of *21* Amperes

B *15* lights each of *5, 16 & 32* candle power requiring a total current of *6.5* Amperes

C *41* lights each of *16* candle power requiring a total current of *22.5* Amperes

D lights each of candle power requiring a total current of Amperes

E lights each of candle power requiring a total current of Amperes

*2* Mast head light with *2* lamps each of *32* candle power requiring a total current of *2.2* Amperes

*2* Side light with *2* lamps each of *32* candle power requiring a total current of *2.2* Amperes

*7* Cargo lights of *5:-128* candle power, whether incandescent or arc lights *5:-128 c.p. - incandescent. 2:-500 c.p. - arc lamps.*

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

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

## DESCRIPTION OF CABLES.

Main cable carrying *70* Amperes, comprised of *60* wires, each *#20* L.S.G. diameter, *0.0611* square inches total sectional area

Branch cables carrying *21* Amperes, comprised of *19* wires, each *#20* L.S.G. diameter, *0.0190* square inches total sectional area

Branch cables carrying *6.5* Amperes, comprised of *7* wires, each *#20* L.S.G. diameter, *0.0071* square inches total sectional area

Leads to lamps carrying *0.55* Amperes, comprised of *1* wires, each *#18* L.S.G. diameter, *0.0018* square inches total sectional area

Cargo light cables carrying *7* Amperes, comprised of *283* wires, each *#38* L.S.G. diameter, *0.0080* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

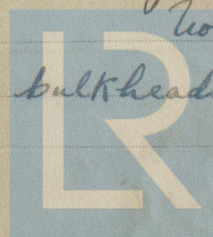
Armoured rubber insulated lead covered wire, lead covered rubber insulated wire, cotton braided rubber insulated wire are used.

Joints in cables, how made, insulated, and protected *joints in cables are made on small marble plates in water proof junction boxes.*

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 *They led along decks or bulkheads and fixed with brass bands, if necessary on iron plates.*



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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 Galvanized steel armoured lead covered wires are used.

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

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

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

How are cables carried through beams Through lead tubes, through bulkheads, &c. Through lead glands.

How are cables carried through decks Through water tight glands.

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

If so, how are they protected Galvanized steel armoured lead covered wires are used.

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

If so, how are the lamp fittings and cable terminals specially protected With iron cover or brass guard and mica or micaite

Where are the main switches and cut outs for these lights fitted In distribution boxes out side of these spaces.

If in the spaces, how are they specially protected none.

Are any switches or cut outs fitted in bunkers none.

Cargo light cables, whether portable or permanently fixed How fixed By sockets in cargo light boxes.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel No.

How are the returns from the lamps connected to the hull No.

Are all the joints with the hull in accessible positions No.

The installation is supplied with a voltmeter and an amperemeter, fixed on main switch board.

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 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 1000 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.

S. Tada

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass 102 ft from main dynamo and 22 ft from wireless motor.

Distance between dynamo or electric motors and steering compass 154 ft from main dynamo and 22 ft from wireless motor.

The nearest cables to the compasses are as follows:—

A cable carrying	18	Amperes	25	feet from standard compass	144	feet from steering compass
A cable carrying	4.4	Amperes	6	feet from standard compass	158	feet from steering compass
A cable carrying	6.5	Amperes	96	feet from standard compass	23	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power No.

The maximum deviation due to electric currents, etc., was found to be No. degrees on No. course in the case of the standard compass and No. degrees on No. course in the case of the steering compass.

J. H. Kaur

Builder's Signature.

Date

Nov. 10th, 1916.

GENERAL REMARKS.

The installation has been fitted in accordance with the requirements of the Rules & worked satisfactorily on trial

Elec. light.

J. W. D.

9/1/17.

A. L. Jones

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

Committee's Minute

FRI. 12 JAN. 1917



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