

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2834.

Port of Kobe Date of First Survey Feb 28 Date of Last Survey March 30 No. of Visits 5  
 No. in Reg. Book on the Iron or Steel Ship Screw Steamer Samaranghaya Port belonging to Kobe  
 Built at Kobe By whom Mitsubishi Loan Kaisha When built 1920  
 Owners Kanyo Yusen Kaisha Owners' Address   
 Yard No. 82 Electric Light Installation fitted by Builders When fitted 1920

**DESCRIPTION OF DYNAMO, ENGINE, ETC.**

Compound dynamo directly coupled with vertical enclosed engine  
 Capacity of Dynamo 150 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed 1<sup>st</sup> side Engine Room Whether single or double wire system is used Double  
 Position of Main Switch Board 1<sup>st</sup> side 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 Two in Steering Engine Room, Two in Salon Partry  
One in Mess Room, One in Wireless Office, One in Chart Room, One in Forecastle and  
One in poop alleyway  
 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 Yes  
 Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 5% 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 arranged in the following groups :-  
 A 68 lights each of 24 & 16 candle power requiring a total current of 21.00 Amperes  
 B 39 lights each of 24 & 16 candle power requiring a total current of 11.90 Amperes  
 C 45 lights each of 24 & 16 candle power requiring a total current of 13.35 Amperes  
 D 40 lights each of 24 & 16 candle power requiring a total current of 14.70 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 2.3 Amperes  
2 Side light with 2 lamps each of 32 candle power requiring a total current of 2.3 Amperes  
40 Cargo lights of 32 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 Chart Room

**DESCRIPTION OF CABLES.**

Main cable carrying 154 Amperes, comprised of 37 wires, each 14 S.W.G. diameter, .1824 square inches total sectional area  
 Branch cables carrying 33 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .03375 square inches total sectional area  
 Branch cables carrying 7 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .0070 square inches total sectional area  
 Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area  
 Cargo light cables carrying 33 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .03375 square inches total sectional area

**DESCRIPTION OF INSULATION, PROTECTION, ETC.**

Vulcanized rubber tape. Armoured lines & lines led through iron tubes - as required.  
 Joints in cables, how made, insulated, and protected Main cable - hot jointed. branch cables porcelain insulated joint 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 Cables are clipped to wood secured to beams. Armoured lines are used & wires also led through iron piping

**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 *Wires led through galvanized iron piping*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Wires led through galvanized iron piping*

What special protection has been provided for the cables near boiler casings *do - piping*

What special protection has been provided for the cables in engine room *Armoured wires & wires led through iron piping*

How are cables carried through beams *Wood ferrules are used. through bulkheads, &c. Galv. & nut.*

How are cables carried through decks *Wires kept G. iron deck tube*

Are any cables run through coal bunkers *Yes* or cargo spaces *Yes* or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected *Armoured wires & wires led through galvanized iron piping*

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 *Iron Galv. kept terminal box with cover*

Where are the main switches and fuses for these lights fitted *Engine Room*

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* 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 *✓*

Is the installation supplied with a voltmeter *Yes*, and with an amperemeter *Yes*, fixed *Main Switch board*

**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 *500* 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.

**KOBE WORKS, MITSUBISHI ZOSEN KAISHA, LTD.**

*H. Minagawa* Electrical Engineers Date *9/13/10*

**COMPASSES.**

Distance between dynamo or electric motors and standard compass *89 feet from dynamo*

Distance between dynamo or electric motors and steering compass *106 feet from dynamo*

The nearest cables to the compasses are as follows:—

A cable carrying <i>6</i> Amperes <i>12</i> feet from standard compass <i>22</i> feet from steering compass
A cable carrying <i>2000</i> Amperes <i>8</i> feet from standard compass <i>10</i> feet from steering compass
A cable carrying <i>100</i> Amperes <i>8</i> feet from standard compass <i>10</i> feet from steering compass

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

The maximum deviation due to electric currents, etc., was found to be *0* degrees on *000* course in the case of the standard compass and *0* degrees on *000* course in the case of the steering compass.

Builder's Signature. Date

**GENERAL REMARKS.**

*The installation has been made and fitted under special survey in accordance with the requirements of the Rules and worked satisfactorily on trials*

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

*M. Batcher*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. AUG. 13 1910*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Im. 11.13.—Transfer.