

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 23/2.

Port of *Kobe* Date of First Survey *May 28th* Date of Last Survey *July 2nd* No. of Visits *Five*
 No. in Reg. Book *463* on the Iron or Steel *Single Screw Steamer War Maid* Port belonging to *Imoshima*
 Built at *Imoshima* By whom *Waka Iron Works* When built *1918*
 Owners *Imoshima* Owners' Address *Imoshima*
 Yard No. *913* Electric Light Installation fitted by *Builders* When fitted *1918*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct Compound dynamo
 Capacity of Dynamo *10 KW. 100 Amperes at 100* Volts, whether continuous or alternating current *Direct* ✓
 Where is Dynamo fixed *Sub E.R. platform* Whether single or double wire system is used *Double* ✓
 Position of Main Switch Board *Alongside dynamo* having switches to groups *4 main + 5 branch* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each
E.R. one. Crews quarters: one. Officers quarters: two. Signal light one.
 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 *branched*
 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 *30%* 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 *130 + 2 arcs* arranged in the following groups:—
 A *E Room* 24 lights each of *16* candle power requiring a total current of *12.72* Amperes
 B *Officers qtrs* 37 lights each of *16* candle power requiring a total current of *19.61* Amperes
 C *Crews do* 14 lights each of *16* candle power requiring a total current of *7.4* Amperes
 D lights each of candle power requiring a total current of Amperes
 E *Stein-Chart* lights each of *16 or 32* candle power requiring a total current of *1.59* Amperes
 Mast head light with *2* lamps each of *32* candle power requiring a total current of *2.12* Amperes
 Side light with *2* lamps each of *32* candle power requiring a total current of *2.12* Amperes
 Cargo lights of *12 x 14. Cluden: 16* candle power, whether incandescent or arc lights *Both*.

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

Where are the switches controlling the masthead and side lights placed *Bridge deck*.

DESCRIPTION OF CABLES.

Main cable carrying *100* Amperes, comprised of *lead covered* wires, each *50 @ 18* S.W.G. diameter, *.15* square inches total sectional area
 Branch cables carrying *12.72* Amperes, comprised of *do* wires, each *7 @ 16* S.W.G. diameter, *.024* square inches total sectional area
 Branch cables carrying *19.61* Amperes, comprised of *Armoured + lead covered* wires, each *7 @ 16* S.W.G. diameter, *.024* square inches total sectional area
 Leads to lamps carrying *.53* Amperes, comprised of *lead covered* wires, each *1 @ 18* S.W.G. diameter, *.003* square inches total sectional area
 Cargo light cables carrying *32.5* Amperes, comprised of *do* wires, each *19 @ 18* S.W.G. diameter, *.035* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The wires through Officers + crews quarters are lead covered + protected by wood casings.
Engine and boiler rooms are Armoured + protected by galv'd iron piping.
 Joints in cables, how made, insulated, and protected *Porcelain also Cast Iron 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 *Through galv'd iron piping or wood casings.*



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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 *led through Calad in piping*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Armoured wires used*

What special protection has been provided for the cables near boiler casings *Armoured wires used*

What special protection has been provided for the cables in engine room *Armoured wire or lead covered through Calad*

How are cables carried through beams *lead sheath covered* through bulkheads, &c. *Gland & nut with rubber packing*

How are cables carried through decks *through Calad piping fitted to deck by flanges*

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

If so, how are they protected *by use of armoured wire, & lead cord wire through in pipes*

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

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

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 *at 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 _____ 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.

E. Toyoshima Electrical Engineers

Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass *Above 90'-0"*

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying *53* Amperes *7'-0* feet from standard compass _____ feet from steering compass

A cable carrying _____ Amperes _____ feet from standard compass _____ feet from steering compass

A cable carrying _____ Amperes _____ feet from standard compass _____ 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 _____ degrees on _____ course in the case of the

standard compass and _____ degrees on _____ course in the case of the steering compass.

Builder's Signature _____

Date _____

GENERAL REMARKS.

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

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

H.D. 20/11/19.

R. B. Batcher

Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____