

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5101

Port of Kobe Date of First Survey 3-12-25 Date of Last Survey 26-12-25 No. of Visits 5  
 No. in Reg. Book on the ~~Iron~~ Steel Single Screw GENBU MARU Port belonging to TAKASAGO  
 Built at OSAKA By whom OSAKA IRON WORKS LTD When built 1925-12  
 Owners OSAKA IRON WORKS LTD Owners' Address OSAKA  
 Yard No. 1071 Electric Light Installation fitted by OSAKA IRON WORKS LTD When fitted 1925-12

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*Continuous current dynamo, compound wound, direct connected to single vertical engine placed in lower engine room on side, with axis fore & aft.*  
 Capacity of Dynamo 30 Amperes at 100 V Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Lower engine room Whether single or double wire system is used double  
 Position of Main Switch Board Near 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 (A) Crowspace 3 sw. (C) pantry & Eng Rm entrance 6 sw. (D) in Engine room 4 sw.

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 100% 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 83 arranged in the following groups:—  
 A FOR<sup>E</sup> 11 lights each of 16 candle power requiring a total current of 2.2 Amperes  
 B AFT 7 lights each of 16 candle power requiring a total current of 1.4 Amperes  
 C BRIDGE DECK ACC. 34 lights each of 16 & 10 candle power requiring a total current of 7 Amperes  
 D MACH<sup>Y</sup> SPACE 22 lights each of 16 candle power requiring a total current of 4.4 Amperes  
 E NAVIGATION lights each of 16, 32 & 10 candle power requiring a total current of 3.2 Amperes  
1 Mast head light with 1 lamps each of 32 candle power requiring a total current of 1 Amperes  
2 Side light with 1 lamps each of 32 candle power requiring a total current of 2 Amperes  
6 Cargo lights of (6 lamps each, in clusters) 100 candle power, whether incandescent or arc lights Incandescent

If arc lights, what protection is provided against fire, sparks, &c. No arc lights fitted

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

## DESCRIPTION OF CABLES.

Main cable carrying 30 Amperes, comprised of 15 wires, each N° 19 S.W.G. diameter, 0.019 square inches total sectional area  
 Branch cables carrying 18 Amperes, comprised of 7 wires, each " 19 S.W.G. diameter, 0.009 square inches total sectional area  
 Branch cables carrying 4.4 Amperes, comprised of 7 wires, each " 21 S.W.G. diameter, 0.0056 square inches total sectional area  
 Leads to lamps carrying 1.2 Amperes, comprised of 1 wires, each 0.051" S.W.G. diameter, 0.002 square inches total sectional area  
 Cargo light cables carrying 4.0 Amperes, comprised of 7 wires, each N° 21 S.W.G. diameter, 0.0056 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Lead covered with galv. wire & part in iron pipe where exposed to weather, heat or injury with vulcanized rubber & tape insulation*  
*Lead covered cables fitted in accommodation spaces securely clipped*  
 Joints in cables, how made, insulated, and protected Part in C.I. junction boxes with incombustible bases, & boxes lined with asbestos. Part soldered & insulated with vulcanized rubber & tape & part in porcelain junction 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 Clipped to side of deck longitudinally & part in iron pipe where exposed



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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 *Iron pipe*

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

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

What special protection has been provided for the cables in engine room *Armoured cable secured to wood base & fast in iron pipe*

How are cables carried through beams *holes in beams lead bushed in rope through bulkheads, &c. Hands made N.T. ✓*

How are cables carried through decks *Flanged galvanized iron pipe ✓*

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 *Armoured cable clipped to side of deck longitudinally ✓*

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 *Clipped to side of longitudinals*

Are any switches or fuses fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *Plugged in*

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 Main S.B.*

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.

*Osaka Iron Works Ltd*

*K. Nagase*, Electrical Engineer

Date *11-1-26*

COMPASSES.

Distance between dynamo or electric motors and standard compass *About 52'-0" from wireless motor*

Distance between dynamo or electric motors and steering compass *about 106'-0" " "*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>0.2</i>	<i>4</i>	<i>abt 8</i>	
<i>2.5</i>	<i>6</i>	<i>" 14</i>	
<i>7.4</i>	<i>11</i>	<i>" 20</i>	

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 *Nil* degrees on *all* course in the case of the standard compass and *Nil* degrees on *all* course in the case of the steering compass.

*W. Free*

MANAGER.

Builder's Signature.

Date *11-1-26*

GENERAL REMARKS.

*This installation has been fitted as stated in this report & in accordance with the requirements of the Rules, & the workmanship throughout is good. The installation was tried under full load conditions & found satisfactory. This case is eligible in my opinion for the notation "Electric Light" in Register Book.*

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

*Elec. light. JWD 9/2/26.*

*H.D. Buchanan,*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

*Elec. light. JWD*



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