

MUN 17 MAR 1919

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2405.

Kobe. Date of First Survey *Sept 23rd* Date of Last Survey *October 23rd* No. of Visits *5*
 on the ~~Iron or Steel~~ *Single Screw Steam* *Koyisan Maru* port belonging to *Kobe.*
 Built at *Inmoshima* By whom *Osaka Iron Works (Inmoshima branch)* When built *1918*
Nisui-bussan Kaishiki Kaisha Owners' Address
928 Electric Light Installation fitted by *Osaka Iron Works* When fitted *1918*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct current Compound dynamo

of Dynamo *15 KW 150* Amperes at *100* Volts, whether continuous or alternating current *DC*

Dynamo fixed *1st side ER bottom platform* Whether single or double wire system is used *double wire system*

of Main Switch Board *Bulkhead 1st bunker* having switches to groups *main circuit + 6 branches* of lights, &c., as below

of auxiliary switch boards and numbers of switches on each

Engine room: One. Crews Quarters: One. Officers Quarters: Two.

Signal light: One. Wireless: One.

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 *Branched* and to each lamp circuit *Branched*

el is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits

the fuses of non-oxidizable metal *Yes* and constructed to fuse at an excess of *30* per cent over the normal current

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*

all switches and fuses constructed of incombustible materials and fitted on incombustible bases *Yes*

number of lights provided for *80 + 2 arc lamps* arranged in the following groups:—

<i>Engine Room</i>	<i>32</i> lights each of <i>16</i>	candle power requiring a total current of <i>16.96</i>	<i>Amperes</i>
<i>Officers Rooms</i>	<i>63</i> lights each of <i>10 - 16</i>	candle power requiring a total current of <i>33.39</i>	<i>Amperes</i>
<i>Crews Quarters</i>	<i>13</i> lights each of <i>16</i>	candle power requiring a total current of <i>6.89</i>	<i>Amperes</i>
<i>Wireless</i>	lights each of	candle power requiring a total current of <i>4.8</i>	<i>Amperes</i>
<i>Signal light</i>	<i>2</i> lights each of <i>16 + 32</i>	candle power requiring a total current of <i>1.59</i>	<i>Amperes</i>
<i>Chart Room</i>		candle power requiring a total current of <i>2.12</i>	<i>Amperes</i>
<i>Mast head light with</i>	<i>2</i> lamps each of <i>32</i>	candle power requiring a total current of <i>2.12</i>	<i>Amperes</i>
<i>Side light with</i>	<i>2</i> lamps each of <i>32</i>	candle power requiring a total current of <i>2.12</i>	<i>Amperes</i>
<i>Cargo lights of</i>	<i>13-5 Clustered 16</i>	candle power, whether incandescent or arc lights <i>both</i>	

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

Glass Globe

where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

main cable carrying <i>150</i> Amperes, comprised of <i>Copper</i> wires, each <i># 50/18</i> S.W.G. diameter, <i>15</i> square inches total sectional area
branch cables carrying <i>16.96</i> Amperes, comprised of <i>do</i> wires, each <i># 7/16</i> S.W.G. diameter, <i>.026</i> square inches total sectional area
branch cables carrying <i>33.39</i> Amperes, comprised of <i>do</i> wires, each <i># 7/16</i> S.W.G. diameter, <i>.024</i> square inches total sectional area
leads to lamps carrying <i>53</i> Amperes, comprised of <i>do</i> wires, each <i># 11/18</i> S.W.G. diameter, <i>.003</i> square inches total sectional area
argo light cables carrying <i>13.65</i> Amperes, comprised of <i>do</i> wires, each <i># 19/18</i> S.W.G. diameter, <i>.005</i> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Officers Rooms & Crews Quarters. Lead covers wires led through wood casings
Engine & Boiler Space & Cargo Space Armoured wires or led through Galvanized
trI piping

Joints in cables, how made, insulated and protected

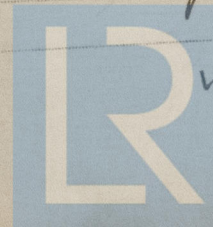
Enclosed in porcelain or Cast Iron box

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 *Armoured wires are used or wires protected by*

Galvanized trI pipes.



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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 *This led through Calvanizer KI pipes.*

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

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

What special protection has been provided for the cables in engine room *Armoured wire Swives led through Galval KI pipes*

How are cables carried through beams *through bulkheads, &c. Gland & packing complete*

How are cables carried through decks *through Galval KI pipes with flanges fitted to decks.*

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 or wires through Calvanizer KI pipes*

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 *no*

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 *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 on 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. Toyashima 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	Amperes	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 according to the Rule Requirements and worked satisfactorily on trial

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

JWD 17/3/19

R. P. Batcher

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 1 APR. 1919