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## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2606

Port of *Kobe*. Date of First Survey *June 2<sup>nd</sup>* Date of Last Survey *June 26<sup>th</sup>* No. of Visits *4*.  
 on the *Iron or Steel Single Screw Steamer "Yase Maru"* Port belonging to *Toba*  
 Book Built at *O Narima* By whom *The Narima Dockyard Co.* When built *1919*.  
 Owners *Teikoku Steamship Company.* Owners' Address  
 No. *10*. Electric Light Installation fitted by *The Narima Dockyard Co.* When fitted *1919*.

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*One direct current open type compound dynamo directly coupled with special high speed single engine.*  
 Capacity of Dynamo *13 KW. 118* Amperes at *110* Volts, whether continuous or alternating current *Continuous*  
 Where is Dynamo fixed *Engine room bottom platform* Whether single or double wire system is used *double*.  
 Position of Main Switch Board *Along side 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 *No auxiliary board, 5 switches on main panel viz. Signal & Saloon, Engineers & Crew, Engine & Boiler rooms, Cargo lights & Wireless.*  
 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*  
 Is the vessel 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-oxidisable 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 *206* arranged in the following groups:—  

<i>159</i> lights each of	<i>16</i> candle power requiring a total current of	<i>28.9</i> Amperes
<i>40</i> lights each of	<i>16</i> candle power requiring a total current of	<i>20.34</i> Amperes
<i>5</i> lights each of	<i>32</i> candle power requiring a total current of	<i>5.08</i> Amperes
<i>2</i> lights each of	<i>1000</i> candle power requiring a total current of	<i>9.1</i> Amperes
lights each of	candle power requiring a total current of	Amperes
Mast head light with	lamps each of	candle power requiring a total current of
Side light with	lamps each of	candle power requiring a total current of
Cargo lights of	<i>16 &amp; 1000</i> candle power, whether incandescent or arc lights	

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	<i>101.42</i> Amperes, comprised of	<i>37</i> wires, each	<i>16</i> S.W.G. diameter, <i>7.11</i> square inches total sectional area
Branch cables carrying	<i>17.65</i> Amperes, comprised of	<i>11</i> wires, each	<i>20</i> S.W.G. diameter, <i>.011</i> square inches total sectional area
Branch cables carrying	<i>9.82</i> Amperes, comprised of	<i>7</i> wires, each	<i>16</i> S.W.G. diameter, <i>.0226</i> square inches total sectional area
do	<i>6.55</i> Amperes, comprised of	<i>7</i> wires, each	<i>16</i> S.W.G. diameter, <i>.0226</i> square inches total sectional area
Cargo light cables carrying	<i>29.4</i> Amperes, comprised of	<i>7</i> wires, each	<i>16</i> S.W.G. diameter, <i>.0226</i> square inches total sectional area
<i>Wireless</i>	<i>38.0</i>	<i>11</i>	<i>16</i> S.W.G. diameter, <i>.0354</i>

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Insulated wires armoured in holds & bunkers  
 Wires in Engine & Boiler rooms enclosed in steel tubes.*

Joints in cables, how made, insulated, and protected

*Joints soldered & wound with insulating tape protected by boots.*

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

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 wire*



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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 *Lead covered wires are used.*

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

What special protection has been provided for the cables near boiler casings *Runs through steel tube*

What special protection has been provided for the cables in engine room *do — do —*

How are cables carried through beams

*through bulkheads, &c. gland.*

How are cables carried through 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 *Yes*

If so, how are they protected *by armoured wires in wood casing.*

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

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 *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 ☒ and with an amperemeter ☒ fixed

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.

*Skasenge*

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *about 116 feet.*

Distance between dynamo or electric motors and steering compass *about 176 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>17.65</i>	Amperes	<i>about 26</i>	feet from standard compass	<i>about 256</i>	feet from steering compass
A cable carrying	<i>9.82</i>	Amperes	<i>24</i>	feet from standard compass	<i>248</i>	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 requirements of the Rules and noted satisfactory on trial*

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

*ELEC. Light 18/11/19.*

*R. S. Batcher.*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE TEIKOKU SHIPBUILDING CO., LTD.  
Kobe, Japan.  
To Lloyd's.  
REFER TO LETTER No.

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THE SURVEYOR AND ENGINEER ARE REQUESTED TO WRITE ACROSS THIS MARGIN.