

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2307

Port of Nobe Date of First Survey 12<sup>th</sup> July 1918 Date of Last Survey 2<sup>nd</sup> Sep 1918 No. of Visits 5  
 No. in on the Iron or Steel S. S. "Chojun maru" Port belonging to Dairen  
 Reg. Book Osaka Built at Osaka By whom The Fujinagata Dryd. When built 1918  
 Owners Dairen Kisen Kabushiki Kaisha Owners' Address Yamamoto Dori, Dairen  
 Yard No. 27 Electric Light Installation fitted by The Fujinagata Dryd. When fitted 1918

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct current multipolar dynamo direct coupled to vertical single cylinder engine  
 Capacity of Dynamo 50 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine room mid platform  
 Position of Main Switch Board in Engine room 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 After 4 switches, Engine room  
5 switches, middle 3 switches, Bridge 4 switches,  
fore 3 switches  
 If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits yes  
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current  
 Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases yes  
 Total number of lights provided for 143 arranged in the following groups :-  
 A 22 lights each of 16 candle power requiring a total current of 4.4 Amperes  
 B 27 lights each of 16 candle power requiring a total current of 5.4 Amperes  
 C 35 lights each of 16 candle power requiring a total current of 7.0 Amperes  
 D 32 lights each of 16 candle power requiring a total current of 6.4 Amperes  
 E 23 lights each of 16 candle power requiring a total current of 4.6 Amperes  
2 Mast head light with double lamps each of 16 candle power requiring a total current of 0.4 Amperes  
2 Side light with double lamps each of 16 candle power requiring a total current of 0.4 Amperes  
8 Cargo lights of 16x5 candle power, whether incandescent or arc lights incandescent  
 If are lights, what protection is provided against fire, sparks, &c. none

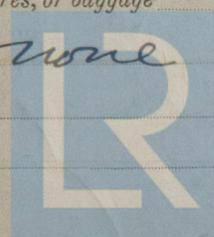
Where are the switches controlling the masthead and side lights placed chart room

## DESCRIPTION OF CABLES.

Main cable carrying 28.6 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, .0955 square inches total sectional area  
 Branch cables carrying 7.0 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .0225 square inches total sectional area  
 Branch cables carrying 3.2 Amperes, comprised of 16 wires, each 16 L.S.G. diameter, .0032 square inches total sectional area  
 Leads to lamps carrying 0.2 Amperes, comprised of 16 wires, each 16 L.S.G. diameter, .0032 square inches total sectional area  
 Cargo light cables carrying 1.0 Amperes, comprised of 110 wires, each 33 L.S.G. diameter, .00864 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulation material are used vulcanized rubber of the best quality and mainly should be lead cover, and protect by wood casing or iron tube for necessary.  
 Joints in cables, how made, insulated, and protected For stranded wires are soldered to proper lugs and are used water tight junction boxes for single wires  
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 none  
 How are the cables led through the ship, and how protected none



**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 *there are used lead covered cable or special flexible cord*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *protected by iron tube*

What special protection has been provided for the cables near boiler casings *none, but provided from E.R. for B.R.*

What special protection has been provided for the cables in engine room *lead covered in the wood casing*

How are cables carried through beams *protect by sheet lead through bulkheads, &c. equally before*

How are cables carried through decks *led through metal tube lined with wood*

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

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *none*

If so, how are the lamp fittings and cable terminals specially protected

Where are the main switches and cut outs for these lights fitted

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers *none*

Cargo light cables, whether portable or permanently fixed *portable* How fixed *proper plug are used & screwed on*

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

**VESSELS BUILT FOR CARRYING PETROLEUM.**

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, cut outs, 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 installation is  supplied with a voltmeter and  an amperemeter, fixed

The copper used is guaranteed to have a conductivity of  per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than  megohms per statute mile after 24 hours' immersion in seawater.

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.

Electrical Engineers

Date

**COMPASSES.**

Distance between dynamo or electric motors and standard compass

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.

*Fujinagata Dockyard* Builder's Signature. Date *Nov. 16th 1918*

**GENERAL REMARKS.**

The installation has been fitted in accordance with the requirements of the Rules & worked satisfactorily on trial. It is submitted that this vessel is eligible for THE RECORD. Elec. light.

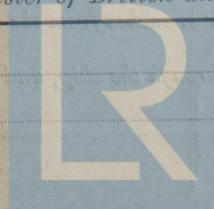
*A. L. Jones*

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

REPORT FORM No. 13.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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