

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1198

Port of **NAGASAKI.**Date of First Survey **9th Aug.**Date of Last Survey **3rd Sept. 1918**No. of Visits **6**No. in
Reg. Bookon the ~~Iron or~~ Steel**s. s. "Himalaya Maru"**Port belonging to **Osaka**

Built at

Nagasaki

By whom

Mitsubishi Zosen KaishaWhen built **1918**

Owners

Osaka Shosen Kaisha

Owners' Address

Osaka

Yard No.

278

Electric Light Installation fitted by

Mitsubishi Zosen KaishaWhen fitted **1918**

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One set of a compound continuous current dynamo, on the same bed plate with a vertical engine.

Capacity of Dynamo **120** Amperes at **100** Volts, whether continuous or alternating current **Continuous**

Where is Dynamo fixed **On starboard side of engine room platform.**

Position of Main Switch Board **On bulkhead aft of dynamo** having switches to groups **25-4-73** of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each **Two in fore part and three in after part of Bridge deck; two in fore part, one amidships, and one in after part of Upper deck; three in engine room; and one in Boiler room.**

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 **No**

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 **50** 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 **4 Circuits** arranged in the following groups:—

A	Bridge deck Circuit	lights each of 4 ^{8 cp.} 61 ^{16 cp.} — ^{25 cp.} 8 ^{32 cp.}	candle power requiring a total current of	23.524	Amperes
B	Fore	lights each of — 13 — 20	candle power requiring a total current of	25.00	Amperes
C	after	lights each of — 1 — 24	candle power requiring a total current of	27.08	Amperes
D	Engine room	lights each of — 50 — —	candle power requiring a total current of	10.02	Amperes
E		lights each of	candle power requiring a total current of		Amperes
	Two Mast head lights with ^{one double} filament lamps each of	32	candle power requiring a total current of	1.12	Amperes
	Two Side lights with " lamps each of	32	candle power requiring a total current of	1.12	Amperes
	Two Cargo lights of 4 ¹⁰⁰⁰ 32		candle power, whether incandescent or arc lights	Incandescent	
			" " (nitro)	Incandescent	

If are lights, what protection is provided against fire, sparks, &c. **✓**

Where are the switches controlling the masthead and side lights placed **In chart room on pilot bridge.**

DESCRIPTION OF CABLES.

Main cable carrying	120 Amperes, comprised of	37 wires, each	15 L.S.G. diameter, 0.1544 square inches total sectional area
Branch cables carrying	23.524 Amperes, comprised of	19 wires, each	18 L.S.G. diameter, 0.0351 square inches total sectional area
Branch cables carrying	10.02 Amperes, comprised of	7 wires, each	16 L.S.G. diameter, 0.0259 square inches total sectional area
Leads to lamps carrying	56 Amperes, comprised of	1 wires, each	18 L.S.G. diameter, 0.0078 square inches total sectional area
Cargo light cables carrying	4.48 Amperes, comprised of	168 wires, each	38 L.S.G. diameter, 0.00485 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Wires & cables are composed of tinned copper insulated with pure india rubber, vulcanizing india rubber coated tape, and the whole vulcanized together, then lead covered, or lead covered & armoured with galvanized iron wire.

Joints in cables, how made, insulated, and protected joints in cables are made in brass pieces fitted on porcelain boxes in submain board and distributing board in tank case or extension boxes of porcelain base, and some joints in cast iron box are soldered and insulated with pure rubber or rubber coated tape.

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, except one in extension box in cast iron cover in the cargo space.**

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 **With the double wire distribution system, and cables are protected by lead cover, or galvanized iron wire armoring, or galvanized iron pipes**

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 *Protected by galvanized iron pipe, or galvanized iron wire armouring.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Galvanized iron wire armouring.*

What special protection has been provided for the cables near boiler casings *Galvanized iron pipe.*

What special protection has been provided for the cables in engine room *Galvanized iron wires, or galvanized iron pipe.*

How are cables carried through beams *Through lead bushes* through bulkheads, &c. *Water tight packing gland.*

How are cables carried through decks *Galvanized iron deck tubes*

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 galvanized iron wires, or galvanized iron pipe.*

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 cut outs for these lights fitted ☒

If in the spaces, how are they specially protected ☒

Are any switches or cut outs fitted in bunkers *No.*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *With fibre fork & connector*

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 on *Switch board.*

The copper used is guaranteed to have a conductivity of *99.6* per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than *600* 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.

[Signature]
GENERAL MANAGER

Electrical Engineers

Date *9th September 1918*

COMPASSES.

Distance between dynamo or electric motors and standard compass { *108 ft. from dynamo.*
24 ft. from wireless motor generator.

Distance between dynamo or electric motors and steering compass { *112 ft. from dynamo.*
24 ft. from wireless motor generator.

The nearest cables to the compasses are as follows:—

A cable carrying <i>5-6</i> Amperes <i>7</i> feet from standard compass <i>15</i> 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 *Yes.*

The maximum deviation due to electric currents, etc., was found to be *nil* degrees on *any* course in the case of the standard compass and *nil* degrees on *any* course in the case of the steering compass.

[Signature]

[Signature]
GENERAL MANAGER

Builder's Signature.

Date *9th Sept 1918*

GENERAL REMARKS.

This Electric Installation has been fitted in accordance with the Rules, tested, and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD. ELEC LIGHT

A. S. Williamson

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

