

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1259

Port of **NAGASAKI** Date of First Survey 13th Sept Date of Last Survey 25th Sept. 1919 No. of Visits 5
 on the ~~Iron or Steel~~ s.s. "Delagoa Maru" Port belonging to Tokio
 Book Built at Nagasaki By whom Mitsubishi Zosen Kaisha When built 1919
 Owners Nippon Zosen Kaisha Owners' Address Tokio
 No. 328 Electric Light Installation fitted by Nagasaki Works, Mitsubishi Zosen Kaisha When fitted 1919.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One set of a compound continuous current dynamo on the same shaft with a vertical engine.

Capacity of Dynamo 150 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 In bulkhead aft of dynamo having switches to groups 40 to 97 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Two in fore-castle, six in midship deck house, two in steering engine house, and three in machinery space.

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.

Where 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 Five Circuits arranged in the following groups:—

Group	Lights	Watts	Candle Power	Current (Amperes)
Fore-castle	lights each of 18, 20, 2	500 ^W	22.15	Amperes
Midship	lights each of 4, 58, 5		25.91	Amperes
Aft	lights each of 2, 37, 8, 2		21.16	Amperes
Machinery Space	lights each of 56		11.76	Amperes
Two Mast head light with <u>one double</u> lamps each of 32			1.12	Amperes
Two Side light with <u>do.</u> lamps each of 32			1.12	Amperes
Mast head Signal lamp with 6 lamps each of 6			0.47	"
Twelve Cargo lights of 4 x 32				"
Four " " " 500 watt (1000)				"

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

Where are the switches controlling the masthead and side lights placed In Chart room on Navigating Bridge.

DESCRIPTION OF CABLES.

Main cable carrying 150 Amperes, comprised of 37 wires, each 14 L.S.G. diameter, 0.1906 square inches total sectional area
Branch cables carrying 25.91 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, 0.0229 square inches total sectional area
Branch cables carrying 11.76 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, 0.0126 square inches total sectional area
Wires leading to lamps carrying 0.21 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, 0.0078 square inches total sectional area
Cargo light cables carrying 1.68 Amperes, comprised of 168 wires, each 38 L.S.G. diameter, 0.005 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Wires and 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 and armoured with galvanized iron wires.

Joints in cables, how made, insulated, and protected joints in cable are made in brass pieces fitted on porcelain bases in main board and distributing board in teak case, or extension box of porcelain base, and some joints in cast iron boxes 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.

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 On 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 Galvanized iron pipes 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 wire armouring.

What special protection has been provided for the cables in engine room Galvanized iron wire armouring, or galvanized iron pipes.

How are cables carried through beams Through lead bushes through bulkheads, &c. Watertight packing glands.

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

If so, how are they protected Galvanized iron wire armouring, or galvanized iron 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

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 Fibre fork + connector, or W. T. Combined socket switch

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 Main Switchboard

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.

NAGASAKI WORKS, MITSUBISHI ZOSHEN KAISHA, LTD.

[Signature]
GENERAL MANAGER.

Electrical Engineers

Date 25-10-1919.

COMPASSES.

Distance between dynamo or electric motors and standard compass 108 feet from dynamo

Distance between dynamo or electric motors and steering compass 122 " " "

The nearest cables to the compasses are as follows:—

A cable carrying <u>5.6</u> Amperes <u>2.7</u> feet from standard compass	<u>9</u> feet from steering compass
A cable carrying <u>✓</u> Amperes <u>✓</u> feet from standard compass	<u>✓</u> feet from steering compass
A cable carrying <u>✓</u> Amperes <u>✓</u> feet from standard compass	<u>✓</u> 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.

NAGASAKI WORKS, MITSUBISHI ZOSHEN KAISHA, LTD.

[Signature]
GENERAL MANAGER.

Builder's Signature.

Date 25-10-1919.

GENERAL REMARKS.

This Electric Lighting 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. *[Signature]* and *[Signature]* Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM NO. 11.



© 2021

Lloyd's Register Foundation