

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2050

Port of Rohé Date of First Survey 22nd June Date of Last Survey 8th Aug. 1917 No. of Visits 8
 No. in on the Iron Steel Sec. Str. "Genmei Maru" Port belonging to Rohé
 Reg. Book Built at Rohé By whom The Mitsu Bishi Dryd & E. Wks. When built 1917
 Owners Messrs. Uzenishi Sh. Ka. Owners' Address Rohé
 Yard No. 68 Electric Light Installation fitted by The Mitsu Bishi Dryd & E. Wks. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One set of 12 kW. 100 Volts X 550 R.P.M. Open type Continuous Current compound wound dynamo directly coupled with single cylinder vertical stem engine.
 Capacity of Dynamo 120 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed starboard at engine room Whether single or double wire system is used Double
 Position of Main Switch Board near to the dynamo having switches to groups 5 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each each located on the following places;
1 - starboard passage at fore-castle deck, 2 - 1st class pantry, 1 - mess room, 1 - passage starboard at poop deck & 1 - starboard engine room & fitted one switch each.
 If 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
 If vessel is 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-oxidizable metal Tin fuse and constructed to fuse at an excess of 50% 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, brass type sheet.
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases The fuses mounted on porcelain or marble base.
 Total number of lights provided for 126 arranged in the following groups :-
 A Fore-castle lights each of 256 candle power requiring a total current of 5.1 Amperes
 B Saloon lights each of 94.7 candle power requiring a total current of 36. Amperes
 C poop lights each of 400 candle power requiring a total current of 10. Amperes
 D engine & mid ship lights each of 1,032 candle power requiring a total current of 26 Amperes
 E Radio station lights each of 30. candle power requiring a total current of 30. Amperes
2 Mast head light with 1 lamps each of 32 candle power requiring a total current of 2.24 Amperes
2 Side light with 1 lamps each of 32 candle power requiring a total current of 2.24 Amperes
6 Cargo lights of 128 cp or 1,000 candle power, whether incandescent or arc lights 4 incant & 2 arc lamps.
 If arc lights, what protection is provided against fire, sparks, &c. Enclosed type with double glass globes
 Where are the switches controlling the masthead and side lights placed at wheel house on flying bridge.

DESCRIPTION OF CABLES.

Main cable carrying 120 Amperes, comprised of 37 wires, each No 16 S.W.G. diameter, .1184 square inches total sectional area
 Branch cables carrying 26 Amperes, comprised of 19 wires, each No 18 S.W.G. diameter, .034 square inches total sectional area
 Branch cables carrying 20 Amperes, comprised of 7 wires, each No 16 S.W.G. diameter, .022 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 1 wires, each No 16 S.W.G. diameter, .0032 square inches total sectional area
 Cargo light cables carrying 5 Amperes, comprised of 7 wires, each No 20 S.W.G. diameter, .007 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

pure india-rubber, special india rubber separator, vulcanized india rubber, rubber coated tape, the whole vulcanized together and the fibrous coatings are in soaked in preserving compound, then braided with galvanized iron wires.
 Joints in cables, how made, insulated, and protected
Joints in cables are made of the brass terminal that mounted on a porcelain base, or connected with distributing board.

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 Led through bulk head or beam directly clamped with galvanized iron staples & protected wooden cover or iron tubes in respective place.



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 tubing*
for weather deck

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

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

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

How are cables carried through beams *Brass stuffing box* through bulkheads, &c. *Fibre tube or ferrules*

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

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

If so, how are they protected *iron tubing & wooden trunk*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *4 for Coal bunkers*

If so, how are the lamp fittings and cable terminals specially protected *The air tight, portable lamp with long flexible water tight cord.*

Where are the main switches and fuses for these lights fitted *at upper deck alley way.*

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 *water tight or fibre connector in case. attachment plug*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *no.*

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, 1 volt meter*, and with an amperemeter *yes, 1 ammeter*, fixed on *main 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 *no.*

Are any switches, fuses, or joints of cables fitted in the pump room or companion *no.*

How are the lamps specially protected in places liable to the accumulation of vapour or gas *Covering with glass globe fixed firmly in air tight.*

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 *3000* 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.

N. Iso

Electrical Engineers

Date *Aug. 1917*

COMPASSES.

Distance between dynamo or electric motors and standard compass *8.5 ft.*

Distance between dynamo or electric motors and steering compass *9.2 ft.*

The nearest cables to the compasses are as follows:— *Double wire.*

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>.6</i>	<i>8 ft</i>	<i>5 ft.</i>	
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.

MITSUBISHI DOCKYARD & ENGINE WORKS, KOBÉ.

S. Miki

Builder's Signature.

Date

23 Sep. 1917

GENERAL REMARKS.

General Manager.

This 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.

FRI. 16 NOV. 1917

Arthur L. Jones

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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