

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2442

Port of Tokyo Date of First Survey 30-1-19 Date of Last Survey 3-3-19 No. of Visits Six
 No. in on the Steel S.S. "Jinsho Maru" Port belonging to Kobe
 Reg. Book Built at Immoshima By whom Osaka Iron Works Ltd When built 1919
 Owners Yaiyo Kisen Kaisha Ltd. Owners' Address Kobe
 Yard No. 946 Electric Light Installation fitted by Osaka Iron Works Ltd When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct Current Compound Dynamo

Capacity of Dynamo 10 K.W. 100 Amperes at 100 Volts, whether continuous or alternating current D. Current

Where is Dynamo fixed At starboard side on Platform of E.R.

Position of Main Switch Board On the bulkhead of starboard having switches to groups for main circuit, Brake of lights, &c., as below coal bunker and 5 branch wires

Positions of auxiliary switch boards and numbers of switches on each

One for Engine Room, one for crew's quarters, two for officer's Room and one for signal light one for wireless.

If cut outs are fitted on main switch board to the cables of main circuit fitted and on each auxiliary switch board to the cables of auxiliary circuits fitted and at each position where a cable is branched or reduced in size branched and to each lamp circuit branched

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 fitted

Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 30% 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 94 + 2 arc lamps arranged in the following groups:—

A Engine Room 28 lights each of 16 candle power requiring a total current of 16.84 Amperes

B Officers Room 26 lights each of 16 candle power requiring a total current of 12.72 Amperes

C Crews quarters 8 lights each of 16 candle power requiring a total current of 1.24 Amperes

D Wireless Telegraphy lights each of 48 candle power requiring a total current of 48 Amperes

E Chart Room + Stern light 2 lights each of 16 or 32 candle power requiring a total current of 1.59 Amperes

Mast head light with 2 lamps each of 32 candle power requiring a total current of 2.12 Amperes

Side light with 2 lamps each of 32 candle power requiring a total current of 2.12 Amperes

Cargo lights of 5-4 clustered 16 candle power, whether incandescent or arc lights both are used

If arc lights, what protection is provided against fire, sparks, &c.

2 Arc lamps used and protected in glass globe. Requiring a total current of 10.6 + 8 amperes

Where are the switches controlling the masthead and side lights placed at bridge deck

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of lead wires, each 50 #18 L.S.G. diameter, 0.15 square inches total sectional area

Branch cables carrying 12.72 Amperes, comprised of do wires, each 7 #16 L.S.G. diameter, 0.024 square inches total sectional area

Branch cables carrying 14.84 Amperes, comprised of armoured wires, each 7 #16 L.S.G. diameter, 0.024 square inches total sectional area

Leads to lamps carrying 53 Amperes, comprised of covered wires, each 1 #18 L.S.G. diameter, 0.003 square inches total sectional area

Cargo light cables carrying 18.6 Amperes, comprised of do wires, each 19 #16 L.S.G. diameter, 0.035 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Officers' Rooms and Crews' quarters: lead covered wire through wooden covers. Engine + Boiler rooms and cargo hatches: - armoured wire or through galvanized wrought iron pipes.

Joints in cables, how made, insulated, and protected

Porcelain box or cast iron box are used.

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 By the use of armoured wires and protected through galvanized wrought iron pipes.

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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 By galvanized wrought iron pipes

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

What special protection has been provided for the cables near boiler casings By the use of armoured wire

What special protection has been provided for the cables in engine room By the use of armoured wire or galvanized W.I. pipes

How are cables carried through beams covered with lead sheet through bulkheads, &c. By gland nut with Indian rubber packing complete

How are cables carried through decks Through galvanized W.I. pipes with flanges which fixed to 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 no

If so, how are they protected By the use of armoured wires or wired through galvanized W.I. pipes

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage Nothing

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

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

If in the spaces, how are they specially protected Do.

Are any switches or cut outs fitted in bunkers Do.

Cargo light cables, whether portable or permanently fixed portable How fixed Do.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Do.

How are the returns from the lamps connected to the hull Do.

Are all the joints with the hull in accessible positions Do.

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 98 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.

(Signed) E. Toyoshima Electrical Engineers Date 5-3-19

COMPASSES.

Distance between dynamo or electric motors and standard compass above 90' 0"

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
<u>.53</u>	<u>7/0</u>		
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.

Builder's Signature. Date

GENERAL REMARKS.

The installation has been fitted according to the Rule requirements and worked satisfactorily

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

JWD
24/5/19

John Sim

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

Committee's Minute' TUE. 27 MAY. 1919