

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2024

Port of Robe Date of First Survey 24 Feb Date of Last Survey 2nd April No. of Visits 8
 No. in Reg. Book on the ~~Non~~ or Steel S.S. "Sek Row Maru" Port belonging to Osaka
 Built at Osaka By whom The Osaka Iron Works When built 1917
 Owners The Osaka Shosen Kaisha Owners' Address Osaka
 Yard No. 903 Electric Light Installation fitted by The Osaka Iron Works When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound, 6 pole, continuous current.

Vertical, single cylinder engine direct coupled to the dynamo.

Capacity of Dynamo 6 K.W. 60 Amperes at 100 Volts, whether continuous or alternating current Continuous ✓

Where is Dynamo fixed in engine room Whether single or double wire system is used double ✓
 1-Cabin 1-Signal

Position of Main Switch Board in engine room having switches to groups 4 in No. 1-Eng. Room 1-Cargo of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each one in chart room which have 7. One in pauly which have 4.

one in mess room which have 5. One in engine room which have 6. One in crewspace which have 3. switches.

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 yes and constructed to fuse at an excess of 30 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 on switch board

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases

Total number of lights provided for Signal, Cabin, Cargo &c. arranged in the following groups:—

A	58	lights each of	16	candle power requiring a total current of	32.48	Amperes
B	17	lights each of	10	candle power requiring a total current of	5.95	Amperes
C	2	lights each of	6	candle power requiring a total current of	0.42	Amperes
D	1 Steam	lights each of	16	candle power requiring a total current of	0.56	Amperes
E		lights each of		candle power requiring a total current of		Amperes
2	Mast head light with 2 lamps each of	32		candle power requiring a total current of	2.24	Amperes
2	Side light with 2 lamps each of	32		candle power requiring a total current of	2.24	Amperes
8	Cargo lights of 4 lamps	16		candle power, whether incandescent or arc lights	Incandescent	

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

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

DESCRIPTION OF CABLES.

Main cable carrying 60 Amperes, comprised of 60 wires, each 20 S.W.G. diameter, 0.06128 square inches total sectional area

Branch cables carrying 18 Amperes, comprised of 19 wires, each 20 S.W.G. diameter, 0.01934 square inches total sectional area

Branch cables carrying 45 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, 0.007126 square inches total sectional area

Leads to lamps carrying 1.06 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, 0.001809 square inches total sectional area

Cargo light cables carrying 2.12 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, 0.003217 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

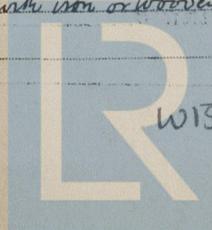
Guthrie's tape & lead.

Joints in cables, how made, insulated, and protected In the iron box or porcelain, & soldered or fitted screw.

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 in accessible position

Are there any joints in or branches from the cable leading from dynamo to main switch board No joint & branches

How are the cables led through the ship, and how protected Through ship's side under deck's with iron or wooden cover.



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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 Lead covered wire
Covered in wooden or metal cover

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Covered with metal or armoured galv.

What special protection has been provided for the cables near boiler casings Armoured galv. wire

What special protection has been provided for the cables in engine room do.

How are cables carried through beams Protected by lead tube through bulkheads, &c. water-tightness

How are cables carried through decks metal cover or brass tube & keeping water-tightness

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 Iron cover in coal bunker, armoured galv. wire in cargo hold.

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

If so, how are the lamp fittings and cable terminals specially protected By metal guard.

Where are the main switches and fuses for these lights fitted in Eng. room

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 By plug to socket in cast-iron box

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

Is the installation supplied with a voltmeter yes, and with an amperemeter yes, fixed to Main Switch box

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

Are any switches, fuses, 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 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 600 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.

J. Hinkas Electrical Engineers Date 23/5/17

COMPASSES.

Distance between dynamo or electric motors and standard compass about 100'

Distance between dynamo or electric motors and steering compass 120'

The nearest cables to the compasses are as follows:—

A cable carrying	<u>0.33</u>	Amperes	<u>2</u>	feet from standard compass	<u>3</u>	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 OSAKA IRON WORKS degrees on _____ course in the case of the steering compass.

S. Yamaguchi Builder's Signature. Date 23/5/17

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.

J.W.D. 13/7/17

Arthur Jones
Surveyor to Lloyd's Register of Shipping.

10,110.—Transfer.

Committee's Minute FRI 13 JUL 1917

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS PAGE.



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