

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2223.

Port of Kobe. Date of First Survey Jan'y 17th Date of Last Survey March 25th No. of Visits 8.
 No. in Reg. Book on the ~~Iron or Steel~~ S.S. Mar Amazon Port belonging to The Naruma Dockyard Co
 Built at Narima By whom The Naruma Dockyard Co When built 1918.
 Owners Battenfield and Pwire. Owners' Address The Naruma Dockyard Co. When fitted 1918.
 Yard No. 7. Electric Light Installation fitted by The Naruma Dockyard Co.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One direct current open type Shunt Generator Coupled with Single Engine.
 Capacity of Dynamo 10 Kw. 96 Amperes at 110. Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Star Side ER. Iron platform. Whether single or double wire system is used Double.
 Position of Main Switch Board Star Side bunker bulkhead having switches to groups Five Circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Five. To Engine and boiler rooms, Bridge deck, upper deck, navigation and Anchoring lamp. also Wireless room.

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 both flow and return

Are the fuses of non-oxidizable metal Yes. and constructed to fuse at an excess of 55 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 ✓

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

Total number of lights provided for arranged in the following groups:—

A	<u>97.</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>444.08.</u>	Amperes
B	<u>5.</u>	lights each of	<u>32.</u>	candle power requiring a total current of	<u>4.54.</u>	Amperes
C	<u>5.</u>	lights each of	<u>16.</u>	candle power requiring a total current of	<u>2.7.</u>	Amperes
D	<u>48.</u>	lights each of	<u>16.</u>	candle power requiring a total current of	<u>21.8.</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>2.</u>	lamps each of	<u>32.</u>	candle power requiring a total current of	<u>2.18</u>	Amperes
	<u>2.</u>	lamps each of	<u>32.</u>	candle power requiring a total current of	<u>2.18.</u>	Amperes
		Cargo lights of	<u>16.</u>	candle power, whether incandescent or arc lights	<u>Incandescent.</u>	

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 73.12 Amperes, comprised of 19. wires, each 16. S.W.G. diameter, .0610. square inches total sectional area
 Branch cables carrying 30. Amperes, comprised of 7 wires, each 16. S.W.G. diameter, .0225. square inches total sectional area
 Branch cables carrying 35. Amperes, comprised of 7 wires, each 16. S.W.G. diameter, .0225. square inches total sectional area
 Leads to lamps carrying 30. Amperes, comprised of 7 wires, each 16. S.W.G. diameter, .0225. square inches total sectional area
 Cargo light cables carrying 20 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .00713. square inches total sectional area
15. 23

DESCRIPTION OF INSULATION, PROTECTION, ETC.

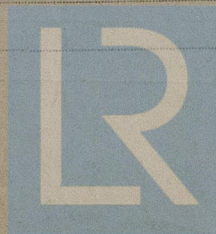
All wires in hold, bunkers etc are enclosed in steel tubes or wood casings.

Joints in cables, how made, insulated, and protected Joints soldered & wound with tape all in way and protected by boots.

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 In steel tubes.



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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.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat? *None.*

What special protection has been provided for the cables near boiler casings? *Steel tubes.*

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

How are cables carried through beams? *In steel tubes.* through bulkheads, &c.

How are cables carried through decks? *through steel tubes.*

Are any cables run through coal bunkers *no* or cargo spaces *4 circs* or spaces which may be used for carrying cargo, stores, or baggage.

If so, how are they protected? *All in steel tubes.*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coats, or baggage? *no.*

If so, how are the lamp fittings and cable terminals specially protected? *✓*

Where are the main switches and fuses for these lights fitted? *✓*

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? *✓*

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 *on dynamo 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?

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 _____ 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.

S. S. Sanga Electrical Engineers

Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass? *About 80'-0"*

Distance between dynamo or electric motors and steering compass? *" 104'-0"*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
5.3.	8	180	
8.5.	148.	12.	

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 in accordance with the requirements of the Rules and worked satisfactorily on trial.

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

W.D. 5/7/18

R. B. Batchelor

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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