

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3553.

Port of Osaka Date of First Survey 21-6-21 Date of Last Survey 8-7-21 No. of Visits 6
 No. in on the Iron Steel S/S. "BANDAI MARU" Port belonging to Kobe
 Reg. Book Osaka Built at Osaka By whom Nitta Shipbuilding Yard When built 1921
 Owners Nitta Kisen Kabushiki Kaisha Owners' Address
 Yard No. 116 Electric Light Installation fitted by Maruki Elect. Co. When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Continuous Current compound Dynamo, direct coupled to single cylinder high speed vertical engine.

Capacity of Dynamo 12 K.W. 120 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine Room starting platform Whether single or double wire system is used double

Position of Main Switch Board Engine Room having switches to groups A B C D E of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each On Main Switchboard

Separate Switches for Fore, aft, Machinery spaces, Navigation Lights and Upper Deck.

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 100 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

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

Total number of lights provided for 170 arranged in the following groups:—

A aft	5	lights each of	10-16	candle power requiring a total current of	2.0	Amperes
B Fore	16	lights each of	10-16	candle power requiring a total current of	5.0	Amperes
C Upper deck	45	lights each of	16	candle power requiring a total current of	15.0	Amperes
D Shell deck	19	lights each of	16	candle power requiring a total current of	7.6	Amperes
E Eng. Rm.	44	lights each of	16	candle power requiring a total current of	13.2	Amperes
Mast head light with	2	lamps each of	32	candle power requiring a total current of	1.6	Amperes
Side light with	2	lamps each of	32	candle power requiring a total current of	1.6	Amperes
	36	Cargo lights of	16	candle power, whether incandescent or arc lights	10.8	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	120	Amperes, comprised of	37	wires, each	16	S.W.G. diameter, .11914	square inches total sectional area
Branch cables carrying	50	Amperes, comprised of	19	wires, each	16	S.W.G. diameter, .06118	square inches total sectional area
Branch cables carrying	35	Amperes, comprised of	7	wires, each	16	S.W.G. diameter, .02254	square inches total sectional area
Leads to lamps carrying	5	Amperes, comprised of	1	wires, each	16	S.W.G. diameter, .00322	square inches total sectional area
Cargo light cables carrying	30	Amperes, comprised of	7	wires, each	16	S.W.G. diameter, .02254	square inches total sectional area
Wireless			7	wires, each	16	S.W.G. diameter, .02254	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

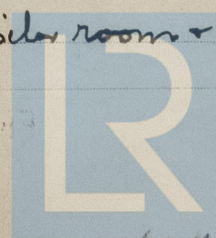
Vulcanized rubber + lead covered + through steel pipes.

Joints in cables, how made, insulated, and protected Joint + distribution boxes with fuses for lamps are used.

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 Cargo space, Engine + Boiler room + shaft tunnel in steel pipes, Saloon + berth lead covered.



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 the use of steel pipes

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat steel pipes

What special protection has been provided for the cables near boiler casings do

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

How are cables carried through beams special sheet lead fittings through bulkheads, &c. Gland with rubber packing

How are cables carried through decks Steel pipe with flanges fixed to deck

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 Steel pipe fitted inside of deck girder

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 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 plug + socket

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 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 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.

S. Nomura Electrical Engineers

Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass about 76'-0"

Distance between dynamo or electric motors and steering compass about 68'-0"

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
1	3	3	3
1	6	6	6
1			

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 _____ degrees on _____ course in the case of the standard compass and _____ degrees on _____ course in the case of the steering compass.

Nitta Shipyard Builder's Signature. Date _____

GENERAL REMARKS.

This 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.

Y. Jo
5/7/22

Assist. Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. SEP. 29 1922



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