

WED. 9 JUL 1919

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2487

Port of Yokohama Date of First Survey May, 8th Date of Last Survey 28 May No. of Visits 6
 No. in on the Iron or Steel S. S. "Roazan Maru" Port belonging to Uruga
 g. Book Built at Tsurumi By whom Asano Shipbuilding Co Ltd When built 1919
 Owners Hashimoto Kisen Kaisha Owners' Address Kobe
 Ord No. 12 Electric Light Installation fitted by Asano Shipbuilding Co Ltd. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two cylinder inverted enclosed high speed steam engine coupled direct to a 6 pole, Direct current generator of 15 K.W. capacity.

Capacity of Dynamo 150 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Lower platform engine room Whether single or double wire system is used Double

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

Positions of auxiliary switch boards and numbers of switches on each 2 of 3 in forecabin, 1 of 3 in poop, 3 of 8 in engine room, 4 of 8 in midship pantry, and saloon passage.

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 lead alloy and constructed to fuse at an excess of 85 % per cent over the normal current

Are all fuses fitted in easily accessible positions Yes Are the fuses of standard dimensions Main only 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 192 arranged in the following groups:—

A	52	lights each of	32, 20 & 16	candle power requiring a total current of	21.0	Amperes
B	50	lights each of	32, 20 & 16	candle power requiring a total current of	21.4	Amperes
C	28	lights each of	32 & 16	candle power requiring a total current of	17.5	Amperes
D	64	lights each of	8 to 32	candle power requiring a total current of	26.0	Amperes
E	Wireless	lights each of	1 K.W. set	candle power requiring a total current of	30.0.	Amperes
	2	Mast head light with	1 lamps each of	32	candle power requiring a total current of	1.5
	2	Side light with	1 lamps each of	32	candle power requiring a total current of	1.5
	7	Cargo lights of (4x32)	128 C.P. each	candle power, whether incandescent or are lights	Incandescent	

If are lights, what protection is provided against fire, sparks, &c. No are lamps fitted.

One morse signal lamps 5 C.P. x 6.

Where are the switches controlling the masthead and side lights placed Chart room.

DESCRIPTION OF CABLES.

Cable Description	Amperes	Comprised of	Wires, each	S.W.G. diameter	Square inches total sectional area
Main cable carrying	150	61	18	1100 S.W.G. diameter, .1256	square inches total sectional area
Branch cables carrying	30	19	16	S.W.G. diameter, .0624	square inches total sectional area
Branch cables carrying	28	7	15	S.W.G. diameter, .029	square inches total sectional area
Leads to lamps carrying	4	1	18	S.W.G. diameter, .0018	square inches total sectional area
Cargo light cables carrying	4.5	168	38	S.W.G. diameter, .0070	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

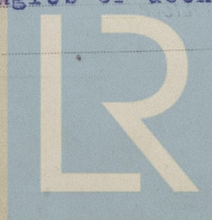
Lead covered wire, armoured used throughout except in living rooms there lead covered wire used.

Joints in cables, how made, insulated, and protected Bronze, Joint blocks, in cast iron boxes.

Are all the ~~joints~~ ^{connector} 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 No joints

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 holds on top of bottom angles of deck side girders.



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Accessible.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered armoured.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead covered armoured.

What special protection has been provided for the cables near boiler casings Clear of casings; on bunker casings in stokehold.

What special protection has been provided for the cables in engine room Lead covered in W.I. pipes where exposed to damp.

How are cables carried through beams Lead linings fitted through bulkheads, &c. Brass W.T. sockets.

How are cables carried through decks Iron deck tubes 12" high, fibre lined.

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 Lead covered, armoured, strongly secured to deck side girders.

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage None

If so, how are the lamp fittings and cable terminals specially protected None

Where are the main switches and fuses for these lights fitted None

If in the spaces, how are they specially protected Not in the spaces, bunker lamps are portables from stokehold

Are any switches or fuses fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable How fixed Screw connectors in C.I. boxes.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double wiring only used.

How are the returns from the lamps connected to the hull None

Are all the joints with the hull in accessible positions XXXX

Is the installation supplied with a voltmeter Yes, and with an amperemeter Yes two, fixed At generator.

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 XX

Are any switches, fuses, or joints of cables fitted in the pump room or companion XXX

How are the lamps specially protected in places liable to the accumulation of vapour or gas XXX

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.

T. Mizuno

Electrical Engineers

Date June 6th 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass From Dynamo 130 feet; wireless motors 85 feet.

Distance between dynamo or electric motors and steering compass From Dynamo 140 feet; wireless motors 95 feet.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>10</u>	Amperes	<u>20</u>	feet from standard compass	<u>25</u>	feet from steering compass
A cable carrying	<u>5</u>	Amperes	<u>10</u>	feet from standard compass	<u>10</u>	feet from steering compass
A cable carrying	<u>1/4</u>	Amperes	<u>0</u>	feet from standard compass	<u>0</u>	feet from steering compass

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 Nil degrees on All course in the case of the

Standard compass and Nil degrees on All course in the case of the steering compass.

Arthur Tomiyama

Builder's Signature.

Date 6-6-19

GENERAL REMARKS. The installation of this vessel has been fitted in accordance with the Society's Rules, the materials and workmanship are good and the engine has been satisfactorily tried under steam.

It is submitted that this vessel is eligible for

6 lee light
JWD. Recd. 9-7-19.

Paul Cairns
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

JUL 15 1919



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