

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2881

Port of YOKOHAMA Date of First Survey 8-7-21 Date of Last Survey 12-8-21 No. of Visits 5  
 No. in Reg. Book on the Iron or Steel TWIN S.S. GINYO MARU Port belonging to YOKOHAMA  
 Built at TSURUMI By whom ASANO S.B. CO When built 1921  
 Owners TOYO KISEN KAISHA Owners' Address YOKOHAMA  
 Yard No. 38 Electric Light Installation fitted by ASANO S.B. CO When fitted 1921

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

One Sing. Cyl. Engine direct coupled to 4 Pole 10KW DC generator  
 One Sing. Cyl. Engine direct coupled to 6 Pole 25KW DC generator  
 Capacity of Dynamos one 90 Amperes at 110 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed E.R. lower deck Whether single or double wire system is used double  
 Position of Main Switch Board E.R. near dynamo having switches to groups 1.2.3.4.5.6.7.8.9.10.11.12 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each E.R. (1-10) Upper Dk 70 (1-8) Upper deck mid (1-8) Upper deck aft (1-8) Shelter deck fore (1-8) Shelter deck mid fore (1-3) (1-6) & (1-8) Shelter deck aft (1-3) (3-6) (1-8) S.D. mid aft (1-3) (3-6) S.D. aft 1-8 Boat Dk fore (1-6) aft 1-6. Bridge Dk 1-6  
 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 no ✓ 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 10 circuits arranged in the following groups:—  

No.	Location	Number of lights	Candle power	Current (Amperes)
1	ENG & BOILER ROOM	53 lights of 600 TO 32	27	27 Amperes
2	UPPER DECK FORE	33 lights each of 1000 TO 32	21	21 Amperes
3	UPPER DECK MID	41 " " " 32 TO 8	16.5	"
4	UPPER DECK AFT	35 lights each of 1000 TO 32	19	19 Amperes
5	SH. DECK FORE	43 " " " 50 TO 32	20.4	"
6	SH. DECK MID FORE	111 lights each of 50 TO 8	49	49 Amperes
7	SH. DECK MID AFT	83 " " " 50 TO 8	38	"
8	SH. DECK AFT	48 lights each of 50 TO 32	22.4	22.4 Amperes
9	NAVIGATION	5 " " " 32	6	"
10	FANS & MACHINE SHED	lights each of	34	34 Amperes
11	WIRELESS	lights each of	40	"
12	Mast head light with 1 lamps each of 32	2.4	2.4 Amperes	
13	Side light with 1 lamps each of 32	2.4	2.4 Amperes	
14	Cargo lights of (2-1000) & (10. 4x50)	incandescent		

 candle power requiring a total current of  
 If arc lights, what protection is provided against fire, sparks, &c. no arcs fitted

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

## DESCRIPTION OF CABLES.

Description	Capacity (Amperes)	Wires	Diameter (S.W.G.)	Area (square inches)
Main cable carrying	90	19	15	.0711
Branch cables carrying	16 to 27	7	16	.022
Leads to lamps carrying	4	1	18	.0018
Cargo light cables carrying	5	168	38	.007

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber insulated wire in W.T. steel tube and lead covered armoured wire throughout except in living rooms where lead covered wire is used.  
 Joints in cables, how made, insulated, and protected Copper joint blocks in E.T. junction boxes  
 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 W.T. pipe



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009106-009115-0228



**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 W.T. STEEL TUBE

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat W.T. Steel tube

What special protection has been provided for the cables near boiler casings W.T. STEEL TUBE

What special protection has been provided for the cables in engine room W.T. steel tube

How are cables carried through beams in steel tubes through bulkheads, &c. W.T. nipples, muffled

How are cables carried through decks W.T. nipples muffled each side

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 W.T. steel tube

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 3 core plus in CI Boxes

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 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.

T. Tamae Electrical Engineers Date 5-9-21

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 130 ft from dynamo 105 ft from Wireless motor

Distance between dynamo or electric motors and steering compass 190 " " " 150 " " " "

The nearest cables to the compasses are as follows:—

A cable carrying <u>6</u> Amperes	<u>10</u> feet from standard compass	<u>10</u> feet from steering compass
A cable carrying <u>4</u> Amperes	<u>10</u> feet from standard compass	<u>10</u> 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 yes

The maximum deviation due to electric currents, etc., was found to be Nil degrees on various courses in the case of the standard compass and Nil degrees on various course in the case of the steering compass.

Builder's Signature. Date

**GENERAL REMARKS.** The installation of this vessel has been fitted in accordance with the Society's Rules. The workmanship and materials are good. The plant tried under working conditions and found satisfactory. Eligible in my opinion for notation in Register Book "ELECTRIC LIGHT"

Fee. Yen 355.00

TUE. NOV. 11 1921

TUE. 22 NOV. 1921

Surveyor to Lloyd's Register of Shipping.