

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3093.

Port of YOKOHAMA Date of First Survey July 21 Date of Last Survey Sept 25th No. of Visits Seven.
 No. in Reg. Book on the Iron or Steel S. S. TATEISHI MARU Port belonging to KAWANO
 Built at YOKOHAMA By whom YOKOHAMA DOCK CO LTD. When built 1922
 Owners UKON SHOJI CO LTD. Owners' Address _____
 Yard No. 96 Electric Light Installation fitted by YOKOHAMA DOCK CO LTD. When fitted _____

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 - 15 K.W. GENERATOR DIRECT CONNECTED TO RECIPROCATING ENGINE.

Capacity of Dynamo 136 Amperes at 110 Volts, whether continuous or alternating current CONTINUOUS
 Where is Dynamo fixed ENGINE ROOM PLATFORM Whether single or double wire system is used DOUBLE
 Position of Main Switch Board NEAR DYNAMO having switches to groups 7 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1 - MAIN,
1 - FORECASTLE, 1 - AMIDSHIP, 1 - ENGINE AND BOILER ROOM,
1 - POOP, 1 - WIRELESS 1 - NAVIGATION.
 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 25 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 140 arranged in the following groups :-

A	<u>18</u> lights each of	<u>16</u> candle power requiring a total current of	<u>3.2</u> Amperes
B	<u>67</u> lights each of	<u>16</u> candle power requiring a total current of	<u>13.4</u> Amperes
C	<u>37</u> lights each of	<u>16</u> candle power requiring a total current of	<u>7.4</u> Amperes
D	<u>6</u> lights each of	<u>16</u> candle power requiring a total current of	<u>1.4</u> Amperes
E	lights each of	candle power requiring a total current of	Amperes
	<u>2</u> Mast head light with <u>2</u> lamps each of	<u>32</u> candle power requiring a total current of	<u>0.8</u> Amperes
	<u>2</u> Side light with <u>2</u> lamps each of	<u>32</u> candle power requiring a total current of	<u>0.8</u> Amperes
	<u>8</u> Cargo lights of $\left\{ \begin{array}{l} 300^{\circ} \text{P} \times 2 \\ (16^{\circ} \text{P} \times 4) \times 6 \end{array} \right\}$	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 CHART ROOM

DESCRIPTION OF CABLES.

Main cable carrying 136 Amperes, comprised of 19 wires, each #10 S.W.G. diameter, 0.199 square inches total sectional area
 Branch cables carrying 13.4 Amperes, comprised of 19 wires, each #18 S.W.G. diameter, 0.039 square inches total sectional area
 Branch cables carrying 7.4 Amperes, comprised of 7 wires, each #16 S.W.G. diameter, 0.022 square inches total sectional area
 Leads to lamps carrying 3.2 Amperes, comprised of 7 wires, each #18 S.W.G. diameter, 0.0104 square inches total sectional area
 Cargo light cables carrying 0.8 Amperes, comprised of 7 wires, each #20 S.W.G. diameter, 0.007 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

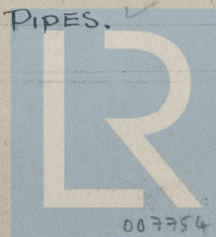
RUBBER COVERED INSULATED TAPE AND PAINTED. ✓

Joints in cables, how made, insulated, and protected JOINT BLOCKS IN BOXES, LEAD AND ARMoured COVERED.

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 ARMoured CABLE AND PIPES. ✓



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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 ARMoured CABLE AND PIPES ✓

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat ARMoured CABLE ✓

What special protection has been provided for the cables near boiler casings ARMoured CABLE AND PIPES ✓

What special protection has been provided for the cables in engine room ARMoured CABLE ✓

How are cables carried through beams PIPES ✓ through bulkheads, &c. PIPES ✓

How are cables carried through decks PIPES ✓

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 ARMoured AND PIPES ✓

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 ✓

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.

M. Ichijashi

Electrical Engineers

Date Oct 23rd 1922

COMPASSES.

Distance between dynamo or electric motors and standard compass 41'-0" FROM WIRELESS MOTOR.

Distance between dynamo or electric motors and steering compass 37'-0" FROM WIRELESS MOTOR.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>0.5</u>	Amperes	<u>6'-0"</u>	feet from standard compass	<u>17'-0"</u>	feet from steering compass
A cable carrying	<u>0.2</u>	Amperes	<u>2'-0"</u>	feet from standard compass	<u>10'-0"</u>	feet from steering compass
A cable carrying	<u>0.2</u>	Amperes	<u>8'-0"</u>	feet from standard compass	<u>8'-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 EVERY course in the case of the standard compass and NIL degrees on EVERY 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 requirements of the Rules & worked satisfactorily on trial.

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

Elec. Light

R. B. Batcher

Surveyor to Lloyd's Register of Shipping.

FRI. 9 MAR. 1923

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.