

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4802

Port of Hong Kong Date of First Survey Date of Last Survey June 30th. No. of Visits 10
No. in on the ~~Iron~~ Steel Sc. Sr. "WAR DRUMMER" Port belonging to Hong Kong
Reg. Book Built at Hong Kong By whom Hong Kong & Whampoa Dock Co. When built 1919
Owners Shipping Controller Owners' Address
Yard No. 567 Electric Light Installation fitted by Hong Kong & Whampoa Dock Co. Ltd. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One Compound wound multipolar dynamo direct coupled to a single cylinder engine.

Capacity of Dynamo 91 Amperes at 110 Volts, whether continuous or alternating current Continuous
Where is Dynamo fixed Engine Room, Port Whether single or double wire system is used Double
Position of Main Switch Board Engine Room, Port having switches to groups 5 of lights, &c., as below
Positions of auxiliary switch boards and numbers of switches on each One in Chart Room having 6 switches

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, Tin & Lead and constructed to fuse at an excess of 50 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 No

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

Total number of lights provided for 123 arranged in the following groups:—

A	25	lights each of	16	candle power requiring a total current of	12.5	Amperes
B	1 Rotary Converter	lights each of	1½ K.W.	candle power requiring a total current of	15	Amperes
C	46	lights each of	16	candle power requiring a total current of	23	Amperes
D	15	lights each of	16	candle power requiring a total current of	7.5	Amperes
E	33	lights each of	16	candle power requiring a total current of	16.5	Amperes
2	Mast head light with	2 lamps each of	32	candle power requiring a total current of	2	Amperes
2	Side light with	2 lamps each of	32	candle power requiring a total current of	2	Amperes
6	Cargo lights of	96	candle power, whether incandescent or arc lights	Incandescent		

If arc lights, what protection is provided against fire, sparks, &c. -

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying	79.5 Amperes, comprised of	19 wires, each	14 S.W.G. diameter, .4	square inches total sectional area	.094.
Branch cables carrying	12.5 Amperes, comprised of	7 wires, each	18 S.W.G. diameter, .144	square inches total sectional area	.0125.
Branch cables carrying	23 Amperes, comprised of	7 wires, each	16 S.W.G. diameter, .192	square inches total sectional area	.022.
Leads to lamps carrying	2 Amperes, comprised of	1 wires, each	16 S.W.G. diameter, .064	square inches total sectional area	.032.
Cargo light cables carrying	3 Amperes, comprised of	135 wires, each	40 S.W.G. diameter, .064	square inches total sectional area	

DESCRIPTION OF INSULATION, PROTECTION, ETC.

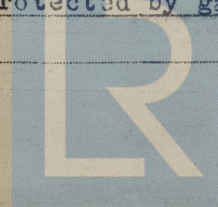
Cables and wires are insulated with pure para rubber, two coats of vulcanising rubber, One binding I.R. coated cotton tape and the whole vulcanised together and lead sheathed and armoured in unprotected places.

Joints in cables, how made, insulated, and protected All made in proper junction boxes made of porcelain.

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 None

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 All cables led openly and protected by galvanised steel armour.



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Yes, in shelter and tween decks.

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

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

What special protection has been provided for the cables near boiler casings Lead covered and armoured

What special protection has been provided for the cables in engine room Lead covered and armoured

How are cables carried through beams In lead bushes through bulkheads, &c. Stuffing boxes

How are cables carried through decks In iron deck tubes

Are any cables run through coal bunkers No or cargo spaces No or spaces which may be used for carrying cargo, stores, or baggage No

If so, how are they protected -

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 Main 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.

R. M. Dyer Electrical Engineers Date June 6th. 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass 18 feet from Wireless Converter

Distance between dynamo or electric motors and steering compass 10 feet from Wireless Converter

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
15	18	10	feet from steering compass
7	12	8	feet from steering compass
			feet from steering compass

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 standard compass. course in the case of the steering compass.

R. M. Dyer Builder's Signature. Date June 6th. 1919

GENERAL REMARKS. Installation tested on May 30th. 1919 with good result.

It is submitted that this vessel is eligible for

THE RECORD. ELEC. LIGHT.

R. M. Dyer 3/8/19

W. Morrison for self & Jno. Lambie
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. AUG. 12. 1919



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