

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5335

Port of Hong Kong Date of First Survey May 9th. Date of Last Survey May 31st. No. of Visits 5
 No. in Reg. Book on the ~~Iron~~ Steel Screw Steamer "PLEIODON" Port belonging to Hong Kong
 Built at Hong Kong By whom Hong Kong & Whampoa Dock Co. Ltd. When built 1922
 Owners Anglo-Saxon Petroleum Co. Ltd. Owners' Address _____
 Yard No. 583 Electric Light Installation fitted by Hong Kong & Whampoa Dock Co. Ltd. When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 12 K.W. Dynamo Direct coupled to a single cylinder engine 100 Volts.
 One 4½ K.W. Dynamo direct coupled to a single cylinder engine 100 Volts.
 Capacity of Dynamos 120 & 45 ✓ Amperes at 100 ✓ Volts, whether continuous or alternating current Continuous ✓
 Where is Dynamo fixed Middle platform of Engine Room Whether single or double wire system is used Double ✓
 Position of Main Switch Board Middle Platform of Eng. R. having switches to groups 6 circuits, 154 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Chartroom, Navigation Lights. 5

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

Total number of lights provided for 154 arranged in the following groups:—

Group	Number of Lights	Lights each of	Candle Power	Requiring a total current of	Amperes
A	32	16		16.5	
B	12	5-32; 7-16		8.5	
C	42	16		21	
D	52	16		26	
E	16	16		8	
2 Mast head light with 1 lamps each of	2	32		2	
2 Side light with 1 lamps each of	2	32		2	
4-6 lights 4-½ Watt Cargo lights of	4-6	96		2	
		400			

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 Chartroom

DESCRIPTION OF CABLES.

Description	Amperes	Wires	Each	S.W.G. diameter	Square inches total sectional area
Main cable carrying	16.5	7	16	.0221	0.8
Branch cables carrying	8.5	7	20	.007	
Branch cables carrying	21	19	14	.0937	
Leads to lamps carrying	2	1	16	.0032	
Cargo light cables carrying	3	113	40	.0020	

DESCRIPTION OF INSULATION, PROTECTION, ETC.

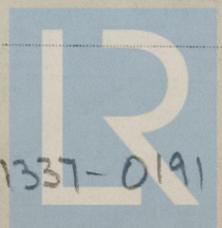
All wires in protected places are insulated with vulcanised india rubber taped and lead covered. In unprotected places they have an additional galvanised iron armour. All main cables are in conduit.

Joints in cables, how made, insulated, and protected All joints are made in suitable 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 Vulcanised indian rubber lead covered galvanised iron armoured wire led through conduit.



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No 5335

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible On deck

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Vulcanised india rubber lead covered and armoured.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Galvanised iron armour.

What special protection has been provided for the cables near boiler casings Galvanised iron armour.

What special protection has been provided for the cables in engine room Galvanised iron armour.

How are cables carried through beams In lead bushes through bulkheads, &c. Brass glands ✓

How are cables carried through decks In iron deck tubes with brass glands at ends. ✓

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 Switchboard

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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion No

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.

HONGKONG & WHAMPOA DOCK CO., LD.

R. M. Dyer

Electrical Engineers

Date June 3rd. 1922.

COMPASSES.

Distance between dynamo or electric motors and standard compass 192 feet

Distance between dynamo or electric motors and steering compass 195 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>8.5</u> Amperes	<u>10</u> feet from standard compass	<u>6</u> feet from steering compass
A cable carrying	- Amperes	- feet from standard compass	- 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 - course in the case of the standard compass and Nil degrees on - course in the case of the steering compass.

HONGKONG & WHAMPOA DOCK Co., Ltd.

Builder's Signature.

Date June 3rd. 1922.

GENERAL REMARKS.

Vessel is fitted with a 1.5 K.W. wireless set / 16 S.W.G. cable supplying same.

Installation tested on May 29th. 1922 with good result.

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

252 applied for 3/5/22

FRI JUL 28 1922

[Handwritten signatures]

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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