

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4619

Port of Hong Kong Date of First Survey 22/10/17 Date of Last Survey 27/11/17 No. of Visits 4
 No. in Reg. Book on the DEWEE Steel Screw Steamer "PROSPER" Port belonging to Hong Kong
 Built at Hong Kong By whom Hong Kong & Whampoa Dock Co. Ltd. When built 1917
 Owners Hans Kiaer & Co. Owners' Address Drammen, Norway
 Yard No. 554 Electric Light Installation fitted by Hong Kong & Whampoa Dock Co., Ltd. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 12 K. W. Multipolar dynamo direct coupled to a single cylinder steam engine.

Capacity of Dynamo 109 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine room starboard Whether single or double wire system is used double
 Position of Main Switch Board Engine room starboard having switches to groups 5 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Chart room 8 switches, steering house 2 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-oxidisable 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 Yes

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

Total number of lights provided for 197 arranged in the following groups:—

Group	Number of Lights	Watts per Light	Total Watts	Current (Amperes)
A Wireless converted	-	-	-	-
B Saloon	56	16	896	28
C Main Deck	39	16	624	19.5
D Tween Decks	19	16	304	9.5
E Engine Room	23	16	368	11.5
2 Mast head light with 1 lamps each of 32	2	32	64	1
2 Side light with 1 lamps each of 32	2	32	64	1
6 Cargo lights of 80	6	80	480	-

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 154 Amperes, comprised of 37 wires, each 15 S.W.G. diameter, .15415 square inches total sectional area
 Branch cables carrying 35.14 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .03514 square inches total sectional area
 Branch cables carrying 22.99 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .02299 square inches total sectional area
 Leads to lamps carrying 3.21 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .0032 square inches total sectional area
 Cargo light cables carrying 3.21 Amperes, comprised of 135 wires, each 40 S.W.G. diameter, 1.0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All conductors are insulated with pure para rubber, two coats vulcanising rubber and I.R. taped and the whole vulcanised, lead covered, braided and armoured with galvanized iron wire except in protected places where it is lead covered only.

Joints in cables, how made, insulated, and protected In junction boxes and distribution boxes and protected by suitable covers.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances - 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 soldered joint

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 Lead covered and armoured with galvanized iron wire.



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 _____

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

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

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

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

How are cables carried through decks In galvanized iron deck tubes. ✓

Are any cables run through coal bunkers - or cargo spaces - or spaces which may be used for carrying cargo, stores, or baggage -

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 -

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 -

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 On 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.H. Dyer
Chief Engineer

Electrical Engineers

Date December 15th. 1917

COMPASSES.

Distance between dynamo or electric motors and standard compass 70 feet

Distance between dynamo or electric motors and steering compass 60 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>.5</u>	Amperes	<u>7½</u>	feet from standard compass	<u>5½</u>	feet from steering compass
A cable carrying	<u>2.5</u>	Amperes	<u>17½</u>	feet from standard compass	<u>11½</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 _____ course in the case of the standard compass and Nil degrees on _____ course in the case of the steering compass.

R.H. Dyer
Chief Engineer

Builder's Signature.

Date December 15th. 1917.

GENERAL REMARKS. Installation tested November 27th. 1917 with good result.

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

J.W.D.
21/2/18

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUE. 26 FEB. 1918

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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