

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4844

Port of Hong Kong Date of First Survey July 1st. Date of Last Survey Aug. 19th. No. of Visits 5
 on the Iron or Steel Sc. Sr. "EVANGELOS" ex "WAR DRIVER" Port belonging to Argostoli
 Book Built at Hong Kong By whom Taikoo Dockyard & Engineering Co. Ltd. When built 1919
 Owners Evangelos E. Ambatielos Owners' Address Argostoli, Greece
 No. 176 Electric Light Installation fitted by Taikoo Dockyard & Engineering Co. Ltd. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A 10 K.W. continuous current generator direct coupled to a 7" dia. single cylinder engine with a 5" stroke built by Sunderland Forge Co.

Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Engine Room Whether single or double wire system is used double

Position of Main Switch Board Engine Room having switches to groups 5 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each None

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 100 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 143 arranged in the following groups:—

Group	Number of lights	Each light	Total candle power	Current required (Amperes)
Aft Circuit	20	16	320	8
Bridships	48	16	768	19.2
Navigation	8	3 - 32 & 5 - 16	160	4.4
Cargo	33	16	528	13.2
Engines	34	16	544	13.6
Wireless Rotary Converter	5	5 K.W.	25	5
1 Mast head light with 1 lamps each of 32 (Carbon)	1	32	32	0.8
2 Side light with 1 lamps each of 32 (Carbon)	1	32	32	1.6
5 Cargo lights of 6 - 16 (Carbon)	5	16	80	1.6

If arc lights, what protection is provided against fire, sparks, &c. No arc lamps on board ship

Where are the switches controlling the masthead and side lights placed Bridge Deck Wheel house.

DESCRIPTION OF CABLES.

Description	Amperes	Wires	Wires each	S.W.G. diameter	Total sectional area (square inches)
Main cable carrying	65	37	16	.1176	0.1176
Branch cables carrying	19.2	7	16	.02227	0.02227
Branch cables carrying	4.4	7	20	.007052	0.007052
Leads to lamps carrying	0.8	1	17	.002463	0.002463
comprised of	108	38	38	.0032	0.0032

INSULATION, PROTECTION, ETC.

Cables are covered with insulated India rubber, wire armoured and braided clipped to deck, wires in injury.

Insulation tested No joints in cables all junctions made in junction boxes.

Is the flux used not containing acids or other corrosive substances Yes Are all joints in accessible Yes

Are there any spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage Yes

Is there any wiring from dynamo to main switch board None

Are all main cables armoured and covered wire in cabin main cables armoured and Yes



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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 Lead covered wire

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

What special protection has been provided for the cables near boiler casings Cables in iron pipe

What special protection has been provided for the cables in engine room Iron pipe

How are cables carried through beams Through lead bushings through bulkheads, &c. Glands on bushings

How are cables carried through decks Iron pipe made watertight

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 Twin armoured wire clipped to deck

Are any lamps fitted in ~~coal bunkers~~ or spaces which may at times be used for cargo, coals, or baggage Yes

If so, how are the lamp fittings and cable terminals specially protected Lamp fittings brass guards terminals C.I. box.

Where are the main switches and fuses for these lights fitted Engine room top

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 900 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.

FOR THE TAIKOO DOCKYARD & ENGINEERING COMPANY, OF HONGKONG LIMITED. Electrical Engineers Date Sept. 6th. 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass 192 feet

Distance between dynamo or electric motors and steering compass 182 feet

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
3.6	12	6	6
19.2	26	20	20
13.2	96	102	102

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 the steering compass

FOR THE TAIKOO DOCKYARD & ENGINEERING COMPANY, OF HONGKONG LIMITED. Builder's Signature. J.W.D. Date LMC 9.19.19

GENERAL REMARKS. Installation tested on August 19th. 1919. with good

It is submitted that this vessel is eligible for THE RECORD Elec. light. J.W.D. 3/11/19.

J.S. Morrison. Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

