

REPORT ON ELECTRIC LIGHTING INSTALLATION.

Received at London Office 2 NOV 1925 10

No. 5914

Port of **Hong Kong**Date of First Survey **21/4/25**Date of Last Survey **2/6/25**No. of Visits **6**No. in Reg. Book on the ~~XXXX~~ Steel **Twin S.S. "BATAAN"**Port belonging to **Manila**Built at **Hong Kong**By whom **W. S. Bailey & Co. Ltd.**When built **1925.**Owners **Teodoro R. Yanco & Co.**

Owners' Address

Yard No. **233**Electric Light Installation fitted by **W. C. Jack & Co. Ltd.**When fitted **1925.**

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound generator, Crompton's protected type, direct coupled to a $5\frac{1}{2} \times 3\frac{1}{2}$ " vertical enclosed steam engine.Capacity of Dynamo **100** Amperes at **100**Volts, whether continuous or alternating current **Continuous**Where is Dynamo fixed **On deck inside E.R. casing**Whether single or double wire system is used **double**Position of Main Switch Board **On E.R. Casing Star. side**having switches to groups **A, B, C, D & E**

of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each **Five circuit D.P. switches on main switch board only.**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 **100** per cent over the normal currentAre 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 **-**Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases **Yes**

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

A	17	lights each of	40 watt	candle-power requiring a total current of	6.8	Amperes	
B	18	lights each of	50 "	candle-power requiring a total current of	9.0	Amperes	
C	19	lights each of	50 "	candle-power requiring a total current of	9.5	Amperes	
D	One each -	lights each of	1000 "	candle-power requiring a total current of	10.0	Amperes	
E	19	lights each of	50 "	candle-power requiring a total current of	9.5	Amperes	
1	Mast head light with	1	lamps each of	32	candle power requiring a total current of	.4	Amperes
2	Side light with	1	lamps each of	32	candle power requiring a total current of	.8	Amperes
2	Gangway	Cargo lights of	100 watt	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 **Wheel House**

DESCRIPTION OF CABLES.

Main cable carrying	100	Amperes, comprised of	19	wires, each	.083	S.W.G. diameter,	.1	square inches total sectional area
Branch cables carrying	10	Amperes, comprised of	7	wires, each	.029	S.W.G. diameter,	.0045	square inches total sectional area
Branch cables carrying	14	Amperes, comprised of	7	wires, each	.029	S.W.G. diameter,	.0045	square inches total sectional area
Leads to lamps carrying	3	Amperes, comprised of	1	wires, each	.044	S.W.G. diameter,	.0015	square inches total sectional area
Gangway Cargo light cables carrying	1	Amperes, comprised of	7	wires, each	.012	S.W.G. diameter,	.0006	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables insulated with one coat of pure rubber and 2 coats of vulcanised rubber, taped and lead covered. Cables in machinery and cargo spaces Lead covered, jute served and armoured.

Joint in cables, how made, insulated, and protected **All joints made in "Durex" watertight boxes with screwed porcelain connectors.**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 **Led through beams and clipped to deck.**

© 2021

Lloyd's Register
Foundation

W103-0184

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.**

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat **Steel 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 **Lead bushes** through bulkheads, &c. **W. T. glands**

How are cables carried through decks **Through pipes with W. T. joint to deck.**

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 **Lead covered and steel armoured.**

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 **on 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 **-**

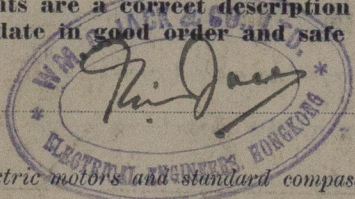
Are any switches, fuses, or joints of cables fitted in the pump room or companion **-**

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 **5000** 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.



Electrical Engineers

Date **30-5-25**

COMPASSES.

Distance between dynamo or electric motors and standard compass **80 feet**

Distance between dynamo or electric motors and steering compass **80 feet**

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
2	-	1	1
10.0	-	5	5
-	-	-	-

Have the compasses been adjusted with and without the electric installation at work at full power **7**

The maximum deviation due to electric currents, etc., was found to be **degrees on** course in the case of the standard compass and **degrees on** course in the case of the steering compass.

W. H. RAY & Co., Ltd.
W. H. RAY
asst. Managing Director

Builder's Signature. Date **30/5/25**

GENERAL REMARKS.

The Electric Lighting Installation of this vessel has been fitted in accordance with the requirements of the Rules.

The materials and workmanship are good.

The installation has been tried under full working conditions and found satisfactory.

Fee...£20. **THE RECORD Elec. Light** Surveyor to Lloyd's Register of Shipping.

Committee's Minute **6 NOV 1925**



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.