Rpt. 13.

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6300

Port of Hongkong Date of First Survey 3/5/28 Date of Last Survey 14/6/28 No. of Visits 8

No. in Reg. Book on the ~~Iron or~~ Steel M/S. "P. ABOITIZ" Port belonging to CEBU. P.I.

Built at Hongkong By whom Hkg Whampoa Dock Co. Ltd When built 1928

Owners La Naviera Filipina Inc. Owners' Address Cebu, P.I.

Yard No. 644 Electric Light Installation fitted by Hkg Whampoa Dock Co. Ltd When fitted 1928

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 4·2 K.W. dynamo driven by a one cylinder 2 cycle single acting heavy oil engine of 7 B.H.P. & connected by a clutch.

Capacity of Dynamo 36·5 Amperes at 115 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Port side of Eng. Room Whether single or double wire system is used Double

Position of Main Switch Board Port side of Eng. Room having switches to groups Three 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 ✓

Are the fuses of non-oxidizable metal yes 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 yes

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

Total number of lights provided for 95 arranged in the following groups :—

A	17	lights each of	20	candle power requiring a total current of	4·25	Amperes
B	35	lights each of	20	candle power requiring a total current of	8·75	Amperes
C	38	lights each of	20	candle power requiring a total current of	9·5	Amperes
D	✓	lights each of		candle power requiring a total current of		Amperes
E	✓	lights each of		candle power requiring a total current of		Amperes
1	Mast head light with 1	lamps each of	48	candle power requiring a total current of	·6	Amperes
2	Side light with 1	lamps each of	48	candle power requiring a total current of	1·2	Amperes
2	Cargo lights of		70	candle power, whether incandescent or arc lights	incandescents	

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

Where are the switches controlling the masthead and side lights placed Bridge

DESCRIPTION OF CABLES.

Main cable carrying	26·9 Amperes, comprised of	19	wires, each	·052 ~~S.W.G.~~ diameter,	·04 ✓	square inches total sectional area
Branch cables carrying	8·75 / 9·5 Amperes, comprised of	7	wires, each	·044 ~~S.W.G.~~ diameter,	·01 ✓	square inches total sectional area
Branch cables carrying	4·25 Amperes, comprised of	7	wires, each	·036 ~~S.W.G.~~ diameter,	·007 ✓	square inches total sectional area
Leads to lamps carrying	1 Amperes, comprised of	1	wires, each	·064 ~~S.W.G.~~ diameter,	·003 ✓	square inches total sectional area
Cargo light cables carrying	1 Amperes, comprised of	113	wires, each	·0048 ~~S.W.G.~~ diameter,	·0015 ✓	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires & cables are vulcanized rubber insulated & lead covered in protected places. In unprotected places they are lead covered & armoured.

Joints in cables, how made, insulated, and protected None

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 ✓

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 Cables are led along under shade deck & protected by lead covering & armouring.

M/V. P. Abgeitz
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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 and armoured.

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

What special protection has been provided for the cables near boiler casings No boilers

What special protection has been provided for the cables in engine room armoured cable run in steel troughs

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 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 ✓

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 ✓

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.

HONGKONG & WHAMPOA DOCK CO., LTD.

R. H. Dyer
Chief Standard

Electrical Engineers *Date* 20th June 1928

COMPASSES.

Distance between dynamo or electric motors and standard compass None

Distance between dynamo or electric motors and steering compass 54 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	1.5	*Amperes*	✓	*feet from standard compass*	6	*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 ✓ *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.

R. H. Dyer
Chief Manager.

Builder's Signature. *Date* 20th June 1928

GENERAL REMARKS.

No wireless or electric motor.
Installation tested on June 14th 1928 with satisfactory results

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

D.H. 25/7/28.

H. H. Morrison
Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. Light FRI. 27 JUL 1928

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

2n.1120.—Traister.