

YACHT.

FRI. FEB 15 1907

Rpt. 13.

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6429

Port of **SOUTHAMPTON** Date of First Survey **July 27, 1906** Date of Last Survey **9 Feb 1907** No. of Visits **7**
 No. in on the **Iron or Steel** **3 1/2 "Medusa"** Port belonging to **London**
 Reg. Book **331 YR** Built at **Southampton** By whom **Bay Summers & Co Ltd** When built **1906**
 Owners **Alfred Farquhar** Owners' Address _____
 Yard No. **136** Electric Light Installation fitted by **J. A. Holmes & Co.** When fitted **1906**

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Holmes multipolar dynamo direct coupled to Foster & Co's High Speed Vertical Engine.
 Capacity of Dynamo **125** Amperes at **80** Volts, whether continuous or alternating current **continuous**
 Where is Dynamo fixed **8ft. side engine room** Whether single or double wire system is used **double**
 Position of Main Switch Board **8ft side engine room** having **6 main** switches to **6 D.P. fuse boards** of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each **1-8 D.P. fuse board in engine room**
1-12 way ditto in aft state cabin passage. 1-10 way ditto aft state cabin corridor, one
8 way Officer mess. 1-10 way ditto vestibule fwd. 1-8 way ditto pantry aft.
 If cut outs 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 **how reduced** and to each lamp circuit **yes**
 If vessel is wired on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits **yes**
 Are the cut outs of non-oxidizable metal **Block tin** and constructed to fuse at an excess of **50%** per cent over the normal current
 Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases **yes.**

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

A	Aft Cabin	{ 28 lights each of 16 T 8	candle power requiring a total current of	20 (20)	Amperes
B	Crews qtrs.	{ 26 lights each of 16 T 8	candle power requiring a total current of	12	Amperes
C	Food Cabin	{ 22 lights each of 16 T 8	candle power requiring a total current of	14	Amperes
D	Engine room	{ 12 lights each of 16	candle power requiring a total current of	9	Amperes
E	Aft Deck House	{ 34 lights each of 16 T 8 CP, the 12 T 8	candle power requiring a total current of	15	Amperes
F	Fwd "	{ 44 " " " 16 T 8 " 3-12 " " " " " " " "	" " " " " " " " " " " " " " " "	22	Amperes
	Must head light with	1 lamps each of 32 Double filament	candle power requiring a total current of	1.5	Amperes
	Two Side light with	1 lamps each of 32 "	candle power requiring a total current of	3	Amperes

total 96.5

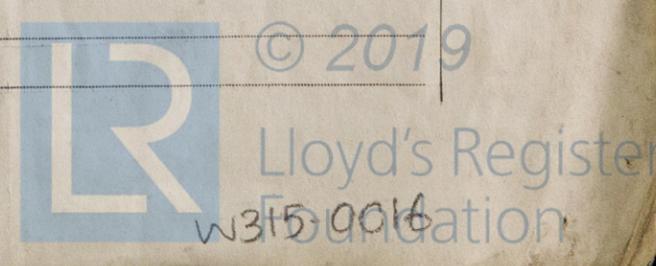
Cargo lights of _____ candle power, whether incandescent or arc lights _____
 If arc lights, what protection is provided against fire, sparks, &c. _____
 Where are the switches controlling the masthead and side lights placed **In chart house.**

DESCRIPTION OF CABLES.

Main cable carrying	60 Amperes, comprised of	19 wires, each 16	L.S.G. diameter, 0.1123 square inches total sectional area
Branch cables carrying	20 Amperes, comprised of	7 wires, each 15	L.S.G. diameter, 0.23500 square inches total sectional area
Branch cables carrying	22 Amperes, comprised of	19 wires, each 18	L.S.G. diameter, 0.34302 square inches total sectional area
Leads to lamps carrying	7 Amperes, comprised of	37 wires, each 18	L.S.G. diameter, 0.12672 square inches total sectional area
Cargo light cables carrying	Amperes, comprised of	wires, each	L.S.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure rubber taped & braided to cable less than 600 sq class.
 Joints in cables, how made, insulated, and protected **Joints only made in the 3/22 cable insulated with pure rubber taped after soldering.**
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux **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 **In wood casing**



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 use. Armoured cable

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

What special protection has been provided for the cables near boiler casings do

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

How are cables carried through beams all holes banded with fibre hats through bulkheads, &c. in WT boxes.

How are cables carried through decks Lead & Galv. iron 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 baggage only

If so, how are they protected Armoured.

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no only baggage room Guarded

If so, how are the lamp fittings and cable terminals specially protected Guarded fittings.

Where are the main switches and cut outs for these lights fitted one dist boards

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers no

Cargo light cables, whether portable or permanently fixed — 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 —

The installation is yes supplied with a voltmeter and yes an amperemeter, fixed on main board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, cut outs, 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 99% per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile after 24 hours' immersion in seawater.

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.

J.H. HOLMES & Co *J. Rutledge* Electrical Engineers Date Aug. 13/06.

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 feet.

Distance between dynamo or electric motors and steering compass do

The nearest cables to the compasses are as follows:—

A cable carrying <u>7</u> Amperes	<u>10 feet</u> feet from standard compass	<u>10 feet</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

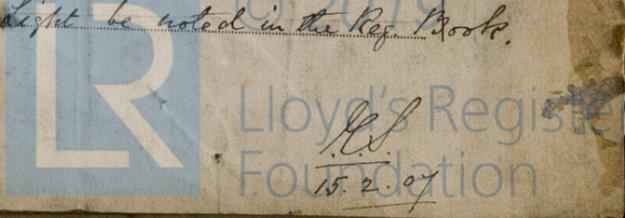
The maximum deviation due to electric currents, etc., was found to be nil degrees on all course in the case of the standard compass and nil degrees on all course in the case of the steering compass. Gas Jones

Builder's Signature. Date 9/2/07

GENERAL REMARKS. The electric light installation of this vessel has been fitted in accordance with the rules and when tried under working conditions found satisfactory. I eligible in my opinion for record "Electric Light."

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

Committee's Minute It is submitted that the Record Elec. Light be noted in the Reg. Books.



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REPORT FORM No. 12.—5m.34.