

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11741

Port of Hamburg Date of First Survey 19th July Date of Last Survey 19th Nov. 10 No. of Visits 8
 No. in Reg. Book on the Iron or Steel No. 10. "Emskotten" Port belonging to Hamburg
 Built at Hamburg By whom Hamburgs Schiffb. G. When built 1910
 Owners Dutch-Ind. Appl. - G. Owners' Address Hamburg
 Yard No. 289 Electric Light Installation fitted by Hamburg Schiffbau - G. When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound Steam Engine coupled direct to Siemens-Schuckert Dynamo running at 330 revolutions p. minute

Capacity of Dynamo 102 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine room Whether single or double wire system is used double throughout
 Position of Main Switch Board in engine room having switches to groups A, B, & C of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1 in Steering Engine space with 6 switches, 1 in passage of midship Deckhouse with 9 switches, 1 under fore-castle with 3 switches and 1 in Charthouse with 5 switches.
 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 yes 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 yes and constructed to fuse at an excess of 25 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 yes
 Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 106 arranged in the following groups:— except portable lights

A	Eng. & Mr. G.	27 lights each of	16	candle power requiring a total current of	12	Amperes
B	Off. Ship.	27 lights each of	16	candle power requiring a total current of	12	Amperes
C	Midsh. & Fore.	52 lights each of	48 of 16 - 4 of 25	candle power requiring a total current of	22	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
2	included in C	Mast head light with	1 lamps each of	25	candle power requiring a total current of	1.5
		Side light with	1 lamps each of	25	candle power requiring a total current of	1.5
		Cargo lights of	8 x 2 x 16 = 480	candle power, whether incandescent or arc lights	both	

If are lights, what protection is provided against fire, sparks, &c. Glas lanterns

Where are the switches controlling the masthead and side lights placed In Charthouse

DESCRIPTION OF CABLES.

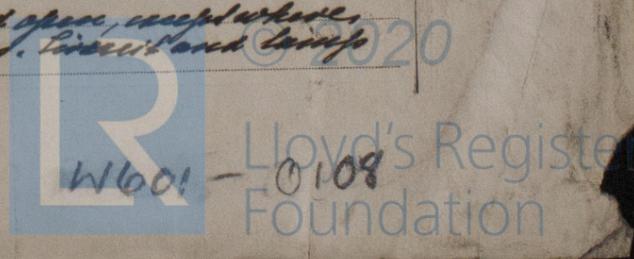
Main cable carrying	102 Amperes, comprised of	7 wires, each	L.S.G. diameter,	84	square inches total sectional area
Branch cables carrying	25 Amperes, comprised of	1 wires, each	L.S.G. diameter,	16	square inches total sectional area
Branch cables carrying	12 Amperes, comprised of	1 wires, each	L.S.G. diameter,	6	square inches total sectional area
Leads to lamps carrying	4.5 Amperes, comprised of	1 wires, each	L.S.G. diameter,	1.5	square inches total sectional area
Cargo light cables carrying	24 Amperes, comprised of	19 wires, each	L.S.G. diameter,	1.8	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main and Branch cables: Copper lined, covered with Para Rubber, coated with impregnated jute tape, lead covered, spun with jute band, double iron bound and spun with asphalted jute tape. Lamp leads: Tinned copper wire, coated with rubber and tape insulation.
 Joints in cables, how made, insulated, and protected Soldered and coated with canvas and tape for lamp circuits and leads, metallic screw joints in watertight boxes on incombustible basis for main and branch cables.

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 Main and branch cables carried open, except where exposed to heat and moisture, where they are led in iron pipes. Lamp and cargo leads are protected by leaded gutters.

Required
66
16
7.8
1.5
15.5



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 cables protected by iron pipes where exposed to heat or moisture.

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

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

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

How are cables carried through beams hard wood bunks through bulkheads, &c. covered brass bunks

How are cables carried through decks Iron galvanized standpipes, 10" high, filled with nonconducting asphalt.

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 cut outs for these lights fitted —

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 portable How fixed —

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel double wired throughout

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 main switch 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 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 50 billions Siemens units 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.

The builders are the Electrical Engineers Date —

COMPASSES.

Distance between dynamo or electric motors and standard compass 97 ft.

Distance between dynamo or electric motors and steering compass 87 ft.

The nearest cables to the compasses are as follows:—

A cable carrying <u>.6</u> Amperes <u>close to</u> feet from standard compass <u>close to</u> feet from steering compass
A cable carrying <u>.45</u> Amperes <u>close to</u> feet from standard compass <u>close to</u> feet from steering compass
A cable carrying <u>—</u> Amperes <u>—</u> feet from standard compass <u>—</u> 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.

Flensburger Schiffbau-Gesellschaft

Builder's Signature Date 18th November 1910

GENERAL REMARKS.

The Electric Light installation on board of this vessel is in my opinion fitted according to the Society's Rules and eligible to be recorded "Elec. Light" in the Register Book.

It is submitted that this vessel is eligible for THE RECORD, Elec. Light. M. Pomeroy
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

