

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3504.

Port of Haare Date of First Survey 20<sup>th</sup> August 1914 Date of Last Survey 8<sup>th</sup> December No. of Visits 10  
 No. in Reg. Book on the Steel Screw Steamer "Ohio" Port belonging to Haare  
 Built at Rouen By whom Chantiers de Normandie When built 1914  
 Owners Chantiers de Normandie Owners' Address Grand-Jacovilly  
 Yard No. 146 Electric Light Installation fitted by Chantiers de Normandie When fitted 1914

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo Boult & Laroche of Paris, coupled with a Vertical engine single cylinder  
working pressure 7.00-500 revolutions

Capacity of Dynamo 62 Amperes at 120. Volts, whether continuous or alternating current continuous.

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

Position of Main Switch Board in engine Room having switches to groups 4 of 179 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each - on auxiliary switch-board on bridge, and then switches on it, on chart Room, mast heads, side light & Compass

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 100. 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 buses - Yes -

Total number of lights provided for 179. arranged in the following groups :-

A Engine & Boiler	42 lights each of	16	candle power requiring a total current of	19	Amperes
B Forehead	35 lights each of	16	candle power requiring a total current of	16.30	Amperes
C Midd. & aft	94 lights each of	16	candle power requiring a total current of	23.50	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 Mast head light with	1 lamps each of	32	candle power requiring a total current of	1.85	Amperes
2 Side light with	1 lamps each of	32	candle power requiring a total current of	1.85	Amperes
4 Cargo lights of	8 lamps each of	16	candle power, whether incandescent or arc lights		

If arc lights, what protection is provided against fire, sparks, &c. none used Total = 62.50

Where are the switches controlling the masthead and side lights placed in Chart Room

## DESCRIPTION OF CABLES.

Main cable carrying	62.5 Amperes, comprised of	19 wires, each	20/10 L.S.G. diameter,	59.7" square inches total sectional area
Branch cables carrying	23.5 Amperes, comprised of	19 wires, each	14/10 L.S.G. diameter,	23.8" square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	L.S.G. diameter,	square inches total sectional area
Leads to lamps carrying	.5 Amperes, comprised of	1 wires, each	9/10 L.S.G. diameter,	.63 square inches total sectional area
Cargo light cables carrying	3.5 Amperes, comprised of	7 wires, each	9/10 L.S.G. diameter,	4.4 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

The cables are insulated with rubber, under lead, & protected by wood casing, or by iron tubes, according to the place & manner

Joints in cables, how made, insulated, and protected joints made in water-tight junction, & properly insulated

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 By iron tubes & in wood casing, secured in covers



**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 iron tubes or wood casing

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat wood casing, or iron tubes

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

What special protection has been provided for the cables in engine room - d - - d - or metallic case

How are cables carried through beams taken in fibrous through bulkheads, &c. Water-tight passage

How are cables carried through decks iron tubes / planks of height 0.250

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 None

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 -

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 -

The installation is Conveniently supplied with a voltmeter and with an amperemeter, fixed in Engine Room

**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 1200. 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.

Electrical Engineers

Date 20<sup>th</sup> January 1915

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 39. Meters

Distance between dynamo or electric motors and steering compass 36.5

The nearest cables to the compasses are as follows:—

A cable carrying	<u>3.7</u> Amperes	<u>13.</u> feet from standard compass	<u>6.6</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 negligible as degrees on no appreciable course in the case of standard compass and - degrees on - course in the case of the steering compass.

Builder's Signature.

Date 23<sup>rd</sup> January 1915

**GENERAL REMARKS.**



Surveyor to Lloyd's Register of British and Foreign Shipping

*Heartley*

Committee's Minute FRI. MAR. 26. 1915

TUE JAN 23 1915



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