

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

Barrow 823

Port of Liverpool

Received at London Office

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No. in Reg. Book. 21.8. Name of Ship S. S. "Jaboo" Built at Bangor. When built 1898.  
Electric Light Installation fitted by W. Liley & Co., Liverpool when fitted June 1898.

## DESCRIPTION OF DYNAMO AND ENGINE.—

1. Robey High speed vertical Steam Engine with Pickering Governor, coupled direct to Dynamo.  
Capacity of Dynamo 20 Amperes at 60 Volts, whether continuous or alternating current Continuous  
Where is Dynamo fixed On platform in engine room.

## WIRING.—

Vessel wired on single or double wire system Double: Total number of lights 18 arranged in the following groups:—  
lights each of 16 cp. candle power requiring a total current of 8 Amperes  
lights each of 16 cp. candle power requiring a total current of 3 Amperes  
lights each of 16 cp. candle power requiring a total current of 3 Amperes  
lights each of 16 cp. candle power requiring a total current of 1 Amperes  
lights each of 16 cp. candle power requiring a total current of 1 Amperes  
Mast head light with 2 lamps each of 32 cp. candle power requiring a total current of 4 Amperes  
Side light with 1 lamp each of 8 - 16 candle power, whether incandescent or arc lights  
Cargo lights of 8 - 16 candle power, whether incandescent or arc lights  
Are lights, what protection is provided against fire, sparks, &c.

## SWITCHES AND CUT-OUTS.—

Position of Main Switch Board Near dynamo: having switches to groups A. D. B. C. E of lights as above  
Positions of other switch boards and numbers of switches on each Board in Wheel House with 1 Plug & Switch for Bencher Portable:  
Cut outs are fitted to main circuit Yes: and to each auxiliary circuit Yes:  
and at each position where cable is branched or reduced in size Yes where necessary:  
If vessel is wired on the double wire system are cut outs fitted on each wire Yes:  
The cut outs of non-oxidizable metal In: and constructed to fuse at an excess of 50 per cent over the normal current  
All cut outs fitted in easily accessible positions Yes:  
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 the lamps specially protected in places liable to the accumulation of vapour or gas  
All switches and cut-outs constructed of unflammable materials and fitted on unflammable bases Yes: Porcelain:

## DESCRIPTION OF CABLES.—

Cables carrying	Amperes, comprised of	Wires, each	Legal standard wire gauge diameter
<u>20</u>	<u>4</u>	<u>14</u>	<u>.035</u>
<u>9</u>	<u>4</u>	<u>18</u>	<u>.022</u>
<u>3</u>	<u>4</u>	<u>22</u>	<u>legal standard wire gauge diameter</u>
<u>1</u>	<u>3</u>	<u>{ 22 } 20</u>	<u>legal standard wire gauge diameter</u>
<u>8</u>	<u>140</u>	<u>38</u>	<u>legal standard wire gauge diameter</u>

The copper used has a conductivity of 98 %: 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

# DESCRIPTION OF INSULATION, PROTECTION, &c.—

P.S. : Vulcanized. Braided & compounded : 600 n. cears :

Joints in cables, how made, insulated, and protected

Pure Rubber : Solution & Becks Date : 24 July 11

Are all the joints of cables thoroughly soldered, resin only having been used as a flux

Yes :

How are cables led throughout the ship

In cabins varnished or painted baring other places galvanized iron tubing :

What special protection has been provided for the cables in open alleyways

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

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

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

Iron tubing. galvanized

How are cables carried through decks

Iron tubing : —

and through bulkheads

Iron tubing. —

Are any cables run through coal bunkers

Yes.

or cargo spaces

Yes.

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may be used for cargo

If so, how are they specially protected

Cargo light cables, whether portable or permanently fixed

Portable

How fixed

With flex strings :

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

## TESTING, &c.—

Y Days nights as required :

Has the installation been thoroughly tested to its full capacity during a trial of hours' duration

The insulation resistance of the whole installation was not less than

ohms

The installation is

supplied with a voltmeter and

Volts meter : an ammeter, fixed on Switch 12

## General Remarks.—

Nearly all cables are run in iron tubing except in cabins :

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.

Wiley & Co. / E. Wiley :

1898, N. S. Elec. Engineers

Electrical Engineers

Date

June : 25/98

## COMPASSES.—

Distance between dynamo and standard compass

20'

Distance between dynamo and steering compass

20'

The nearest cables to the compasses are as follows :—

A cable carrying

6.

Amperes

Portable with twin flex :

feet from standard compass

feet from steering compass

A cable carrying

1

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

Nil

course in the case of the standard compass

and

Nil

degrees on

Nil

course in the case of the steering compass.

Builder's Signature

Date

A.C. Heron :

Surveyor's Signature

Date

30<sup>th</sup> June 1898.

This installation appears to be satisfactory

Registered Lloyd's Foundation