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# REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 47,114

Port of Newcastle-on-Tyne Date of First Survey Feb. 16 Date of Last Survey June 2<sup>nd</sup> 04 No. of Visits 6  
 No. in Reg. Book on the Iron or Steel S.S. "BEME" Port belonging to Rangoon  
 Built at Low Walker By whom W. Johnson & Co. Ltd. When built 1904  
 Owners Burmah Oil Co. Ltd. Owners' Address Glasgow  
 Yard No. 149 Electric Light Installation fitted by Falconar Cross & Co. When fitted 1904

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

4 B.V. Compound Steam Eng. by Clarke Chapman & Co.

Capacity of Dynamo ~~110~~ <sup>50</sup> ~~110~~ Amperes at ~~110~~ 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed In Engine Room

Position of Main Switch Board Engine Room having switches to groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Engine Room 6 switches, ways  
Officers Accommodation 2 Boards each 10 switches 4 forward  
6 ways, after Cabin 6 ways.

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 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 no

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 88 arranged in the following groups:—

A	<u>14</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>8</u>	Amperes
B	<u>25</u>	lights each of	"	candle power requiring a total current of	<u>13</u>	Amperes
C	<u>15</u>	lights each of	"	candle power requiring a total current of	<u>8 1/2</u>	Amperes
D	<u>14</u>	lights each of	"	candle power requiring a total current of	<u>8</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>2</u>	Mast head lights with	<u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u> Amperes
	<u>2</u>	Side light with	<u>1</u> lamps each of	"	candle power requiring a total current of	<u>2</u> Amperes
	<u>4</u>	Cargo lights of	<u>4 x 50</u>	candle power, whether incandescent or arc lights		<u>Incandescent</u>

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

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

## DESCRIPTION OF CABLES.

Main cable carrying 45 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, .046 square inches total sectional area  
 Branch cables carrying 8 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .007 square inches total sectional area  
 Branch cables carrying 13 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .0225 square inches total sectional area  
 Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area  
 Cargo light cables carrying 2 1/2 Amperes, comprised of 70 wires, each 38 L.S.G. diameter, .0018 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure & Vul. 7. Rubber taped & lead covered.

Joints in cables, how made, insulated, and protected

Soldered with Resin flux, insulated with Rubber tapes & protected by C.D. holes. + waterproof

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

as Clipped in sight. Dry Lead covering.



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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 enclosed in wood casing or I. pipe

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

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

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

How are cables carried through beams through lead bushes through bulkheads, &c. through WT stuffing boxes

How are cables carried through decks " 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 yes

If so, how are they protected by steel wire armouring 18 strands No 14 S.W.G.

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 /

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 /

**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 yes

Are any switches, cut outs, or joints of cables fitted in the pump room or companion no

How are the lamps specially protected in places liable to the accumulation of vapour or gas In Iron pipe (L. covered wire)

The installation is supplied with a voltmeter and an amperemeter, fixed on Main S. Board

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 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.

Galeon Crossley Electrical Engineers Date 30/5/04

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 160 feet.

Distance between dynamo or electric motors and steering compass 160 feet.

The nearest cables to the compasses are as follows:—

A cable carrying <u>12</u> Amperes	<u>7</u> feet from standard compass	<u>8</u> feet from steering compass
A cable carrying <u>/</u> Amperes	<u>/</u> feet from standard compass	<u>/</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 all course in the case of the standard compass and nil degrees on all course in the case of the steering compass.

SIR W. G. ARMSTRONG, White Star Line Builder's Signature. Date 4<sup>th</sup> June 1904

**GENERAL REMARKS.**

This installation appears to have been fitted in a satisfactory manner and in accordance with the Rules

G. A. Staker  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

This installation appears to be fitted in accordance with the Rules



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13.