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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 2nd 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. & A. Thomson & 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~~ ⁵⁰ ~~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 belowPositions of auxiliary switch boards and numbers of switches on each *Engine Room 6 switches ways*
Officers Accommodation 2 Boards each 10 switches 4 ways
*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 currentAre 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 *14* lights each of *16* candle power requiring a total current of *8* AmperesB *25* lights each of *"* candle power requiring a total current of *13* AmperesC *15* lights each of *"* candle power requiring a total current of *8½* AmperesD *14* lights each of *"* candle power requiring a total current of *8* 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 *2* Amperes*2* Side light with *1* lamps each of *"* candle power requiring a total current of *2* Amperes*4* Cargo lights of *4 X 50* candle power, whether incandescent or arc lights *Incandescent*

If arc 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 *19* L.S.G. diameter, *0.046* square inches total sectional areaBranch cables carrying *8* Amperes, comprised of *7* wires, each *20* L.S.G. diameter, *0.071* square inches total sectional areaBranch cables carrying *13* Amperes, comprised of *7* wires, each *16* L.S.G. diameter, *0.0225* square inches total sectional areaLeads to lamps carrying *1* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *0.018* square inches total sectional areaCargo light cables carrying *2½* Amperes, comprised of *70* wires, each *38* L.S.G. diameter, *0.018* 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.*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

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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 piping (L. Covered Pipe)*

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 Crossed

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	Amperes	feet from standard compass	feet from steering compass
<i>12</i>	<i>7</i>	<i>8</i>	

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 & CARTER

Builder's Signature.

Date *4th June 1904*

GENERAL REMARKS.

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

G. A. Hake

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

Committee's Minute

This installation appears to be fitted in accordance with the Rules

S. M. 8/6/04

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.