

*S/S Graf Straganoff*

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# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 48402

Port of *Newcastle* Date of First Survey *Nov. 20 '03* Date of Last Survey *Feb. 21 '05* No. of Visits *6*  
 No. in Reg. Book *on the Iron or Steel Palmers No 765 5/8* Port belonging to *St. Petersburg*  
 Built at *Jarrow* By whom *Palmers Ship & Iron Co.* When built *1902*  
 Owners *Paul March* Owners' Address *St. Petersburg*  
 Yard No. *765* Electric Light Installation fitted by *Clarke Chapman & Co. Ltd* When fitted *1902*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*One single cylinder double acting engine direct coupled to continuous current compound wound dynamo.*

Capacity of Dynamo *130* Amperes at *65* Volts, whether continuous or alternating current *continuous*

Where is Dynamo fixed *starting platform starboard side*

Position of Main Switch Board *near to Dynamo* having switches to groups *A. B. C.* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *each light is provided with a switch fitted near to light.*

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 *yes*

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases *yes slate & ambrion*

Total number of lights provided for *140-16 C.P.* arranged in the following groups :-

A	<i>39</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>36</i>	Amperes
B	<i>38</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>35.8</i>	Amperes
C	<i>63</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>58.15</i>	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
	<i>2</i>	Mast head light with <i>1</i> lamps each of	<i>32</i>	candle power requiring a total current of	<i>3.7</i>	Amperes
	<i>2</i>	Side light with <i>1</i> lamps each of	<i>32</i>	candle power requiring a total current of	<i>3.7</i>	Amperes
	<i>2</i>	Cargo lights of each <i>6-32</i>		candle power, whether incandescent or arc lights	<i>incandescent</i>	

If are lights, what protection is provided against fire, sparks, &c. *none fitted*

Where are the switches controlling the masthead and side lights placed *in chart house*

## DESCRIPTION OF CABLES.

Main cable carrying *129.95* Amperes, comprised of *37* wires, each *14* L.S.G. diameter, *.1838* square inches total sectional area

Branch cables carrying *63* Amperes, comprised of *19* wires, each *16* L.S.G. diameter, *.0603* square inches total sectional area

Branch cables carrying *39* Amperes, comprised of *7* wires, each *14* L.S.G. diameter, *.034* square inches total sectional area

Leads to lamps carrying *.9* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.0018* square inches total sectional area

Cargo light cables carrying *10.8* Amperes, comprised of *7* wires, each *18* L.S.G. diameter, *.0125* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Vulcanized rubber taped & braided & lead covered overall & where exposed steel armoured over the lead covering.*

Joints in cables, how made, insulated, and protected *No joints except mechanical ones*

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 no*

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 *lead covered and armoured cables secured by brass clips fixed close up to deck, also in pipes*



**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

Are they in places always accessible no

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture lead covered & steel armoured

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat lead covered & steel armoured

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

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

How are cables carried through beams in bushes through bulkheads, &c. in glands

How are cables carried through decks in galvanized iron watertight deck tubes

Are any cables run through coal bunkers yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected in galvanized iron piping

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage yes cargo spaces only

If so, how are the lamp fittings and cable terminals specially protected terminals in C.I. boxes. Fittings portable

Where are the main switches and cut outs for these lights fitted in cast iron boxes

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 cast iron watertight boxes

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

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

The installation is now supplied with a voltmeter and an amperemeter, fixed on main switchboard

The copper used is guaranteed to have a conductivity of 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2.500 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.

*FOR CLARKE, CHAPMAN & Co. LTD.*

*W. V. V. V.*

Electrical Engineers

Date 13/5/03

**COMPASSES.**

Distance between dynamo or electric motors and standard compass Director. 268 ft

Distance between dynamo or electric motors and steering compass 260 ft

The nearest cables to the compasses are as follows:—

A cable carrying <u>9</u> Amperes <u>10</u> feet from standard compass <u>lighted up</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 \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the standard compass and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

*PALMERS SHIPBUILDING & IRON CO. LD.*

*A. Ruddell*

Builder's Signature.

Date

**GENERAL REMARKS.**

*SHIPYARD MANAGER*

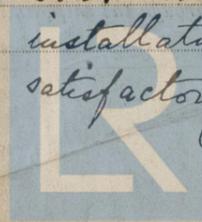
*This installation as far as could be seen appears satisfactory and fitted in accordance with the Rules.*

*J. J. Findley*

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

Committee's Minute

*It is submitted that this installation appears to be satisfactory*



Lloyd's Register Foundation

*3.3.03*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM NO. 15.