

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29167.

Port of Glasgow Date of First Survey 1<sup>st</sup> July Date of Last Survey 5<sup>th</sup> Aug 1910 No. of Visits 10  
 No. in Reg. Book on the Iron or Steel T. S. S. Bosphorus 65 Port belonging to Constantinople  
 Built at Fairfield Govan By whom The Fairfield Shipbuilding & Engineering Co. When built 1910  
 Owners Chirket - Hairie Owners' Address Constantinople  
 Yard No. 475 Electric Light Installation fitted by The Fairfield Shipbuilding & Engineering Co. When fitted 1910

**DESCRIPTION OF DYNAMO, ENGINE, ETC.**

One Compound Wound Dynamo direct coupled to single cylinder, vertical enclosed forced lubrication engine ✓  
 Capacity of Dynamo 150 ✓ Amperes at 100 ✓ Volts, whether continuous or alternating current Continuous ✓  
 Where is Dynamo fixed In Engine Rm. Star'd for'd. ✓ Whether single or double wire system is used Double ✓  
 Position of Main Switch Board In Engine Rm. Star'd for'd. ✓ having switches to groups 3 ✓ of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each None ✓  
 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 cessel 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-oxidisable 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 70 arranged in the following groups :-  
 A 13 lights each of 16 candle power requiring a total current of 7.8 ✓ Amperes  
 B 34 lights each of 16 candle power requiring a total current of 20.4 ✓ Amperes  
 C 20 lights each of 16 candle power requiring a total current of 12.0 ✓ 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  
 1 Mast head light with 1 lamps each of 32 candle power requiring a total current of 1.1 ✓ Amperes  
 2 Side light with 1 lamps each of 32 candle power requiring a total current of 2.2 ✓ Amperes  
 ✓ Cargo lights of \_\_\_\_\_ candle power, whether incandescent or arc lights ✓  
 If arc lights, what protection is provided against fire, sparks, &c. ✓  
 Where are the switches controlling the masthead and side lights placed In Chart House on Bridge.

**DESCRIPTION OF CABLES.**

Main cable carrying 150 Amperes, comprised of 37 wires, each 14 L.S.G. diameter, .183 square inches total sectional area  
 Branch cables carrying 20.4 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area  
 Branch cables carrying 12.0 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area  
 Leads to lamps carrying 6 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area  
 Cargo light cables carrying \_\_\_\_\_ Amperes, comprised of \_\_\_\_\_ wires, each \_\_\_\_\_ L.S.G. diameter, \_\_\_\_\_ square inches total sectional area

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

Vulcanised, Taped, Braided & Compounded also Lead Covered & Armoured ✓  
 Joints in cables, how made, insulated, and protected None ✓  
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux ✓ 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 ✓  
 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 From Engine Rm. along Upper D<sup>e</sup> port for'd. & aft. Wood casing also Lead Covered & Armoured ✓



**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 Teakwood Casing

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

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

What special protection has been provided for the cables in engine room Lead Covered and Armoured

How are cables carried through beams Fibre Bushes through bulkheads, &c. Watertight Glands

How are cables carried through decks Watertight 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 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 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 No

Cargo light cables, whether portable or permanently fixed ✓ 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 ✓ supplied with a voltmeter and ✓ an amperemeter, fixed On Switchboard

**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 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.

**FOR THE FAIRFIELD SHIPBUILDING**

**AND ENGINEERING CO., LIMITED.**

Electrical Engineers

Date Aug. 1910

*W. Sampson* MANAGER.

**COMPASSES.**

Distance between dynamo or electric motors and standard compass ✓

Distance between dynamo or electric motors and steering compass ✓

The nearest cables to the compasses are as follows:—

A cable carrying <u>6</u> Amperes	<u>8</u> feet from standard compass	<u>✓</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 nil degrees on any course in the case of the standard compass and nil degrees on any course in the case of the steering compass.

**FOR THE FAIRFIELD SHIPBUILDING**

**AND ENGINEERING CO., LIMITED.** Builder's Signature.

Date

*W. Sampson* MANAGER.

**GENERAL REMARKS.**

The electric lighting of this vessel has been satisfactorily carried out.

It is submitted that this vessel is eligible for THE RECORD. Elec light: *SJM*

*H. Gardner-Smith*  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

GLASGOW

6-SEP-1910

*Elec. Light. 100*



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