

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28225

Port of Hull Date of First Survey 15.12/14 Date of Last Survey 31.12-14 No. of Visits 6  
 No. in on the ~~Iron~~ Steel Taiipo Port belonging to Grimby  
 Reg. Book 29 Suff Built at Selby By whom Cochrane & Sons When built 1914  
 Owners H. L. Taylor Esq. Owners' Address Fish Dock, Grimby.  
 Yard No. 614 Electric Light Installation fitted by M. Jennison. When fitted Dec. 1914

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

Sisson's enclosed steam engine, direct coupled to dynamo

Capacity of Dynamo 31 Amperes at 65 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed in engine room. Whether single or double wire system is used double wire  
 Position of Main Switch Board in engine room having switches to groups 16 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each none

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 50 per cent over the normal current

Are all fuses 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 all same size

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

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

A	Casing	11 lights each of	25	candle power requiring a total current of	9	Amperes
B	Engines & Stokelld.	5 lights each of	25	candle power requiring a total current of	3	Amperes
C	Aft General	5 lights each of	25	candle power requiring a total current of	3	Amperes
D	Forward	4 lights each of	25	candle power requiring a total current of	3	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	3 Mast head light with	3 lamps each of	25	candle power requiring a total current of	2.5	Amperes
	2 Side light with	2 lamps each of	25	candle power requiring a total current of	1.5	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

**DESCRIPTION OF CABLES.**

Main cable carrying 31 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area  
 Branch cables carrying 3 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .0032 square inches total sectional area  
 Branch cables carrying 1 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area  
 Leads to lamps carrying \_\_\_\_\_ Amperes, comprised of \_\_\_\_\_ wires, each \_\_\_\_\_ S.W.G. diameter, \_\_\_\_\_ square inches total sectional area  
 Cargo light cables carrying 3 Amperes, comprised of 70 wires, each 36 S.W.G. diameter, .0032 square inches total sectional area

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

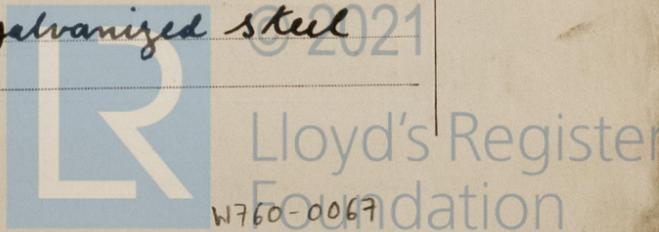
600 S2 VIR Taped & braided cable.

Joints in cables, how made, insulated, and protected Mechanical joints on porcelain only.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances \_\_\_\_\_ 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 Solid drawn screwed galvanized steel conduit.



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  
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 special heat resisting cable  
What special protection has been provided for the cables in engine room  
How are cables carried through beams through bulkheads, &c. backnuts & grummetts  
How are cables carried through decks as above  
Are any cables run through coal bunkers yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage  
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 fuses for these lights fitted  
If in the spaces, how are they specially protected  
Are any switches or fuses 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  
Is the installation supplied with a voltmeter, and with an amperemeter, fixed

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas  
Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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.

H. H. Johnson Electrical Engineers Date Feb 11<sup>th</sup> 1915

COMPASSES.

Distance between dynamo or electric motors and standard compass 40 ft. approx.  
Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 1 Amperes 8 feet from standard compass 4 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

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.

FOR COCHRANE & SONS LTD.

H. H. Johnson Builder's Signature. Date

GENERAL REMARKS.

DIRECTOR.

This installation of electric light has been well fitted. The materials & workmanship are good. It has been tried under full working conditions & found satisfactory.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

JWD 18/2/15

For F. L. Sturgeon, P. Fitzgerald.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Im. 11.13.—Transfer.



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