

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 17913

Port of *Hull* Date of First Survey *May 8th* Date of Last Survey *May 11th* No. of Visits *3*
 No. in Reg. Book *75 Supp* on the *Iron or Steel* *Trawler "Thistle"* Port belonging to
 Built at *Selly* By whom *Lochraue & Sons* When built *1906*
 Owners *J. Duncan Sons & Co* Owners' Address *Liverpool*
 Yard No. *362* Electric Light Installation fitted by *Campbell & Isherwood* When fitted *1906*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Campbell & Isherwood four pole, compound wound dynamo, direct coupled to a Robey double acting single cylinder engine 4 1/2" x 4".

Capacity of Dynamo *30* Amperes at *100* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *Starboard side of engine room*

Position of Main Switch Board *Near dynamo* having switches to groups *A to E* 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 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 *36* arranged in the following groups:—

A	8	lights each of	16	candle power requiring a total current of	4	Amperes	
B	8	lights each of	16	candle power requiring a total current of	4	Amperes	
C	7	lights each of	16	candle power requiring a total current of	3.5	Amperes	
D	6	lights each of	32	candle power requiring a total current of	6	Amperes	
E	7	lights each of	16	candle power requiring a total current of	3.5	Amperes	
D { 1	Mast head light with	1	lamps each of	32	candle power requiring a total current of	1	Amperes
D { 2	Side light with	2	lamps each of	32	candle power requiring a total current of	2	Amperes
A	8	Cargo lights of	16	candle power, whether incandescent or arc lights	Incandescent		

If arc lights, what protection is provided against fire, sparks, &c. *yes*

Where are the switches controlling the masthead and side lights placed *On switch board in engine room.*

DESCRIPTION OF CABLES.

Main cable carrying *28.5* Amperes, comprised of *7* wires, each *15* L.S.G. diameter, *.0285* square inches total sectional area

Branch cables carrying *3* Amperes, comprised of *3* wires, each *20* L.S.G. diameter, *.00306* square inches total sectional area

Branch cables carrying *1.8* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.00181* square inches total sectional area

Leads to lamps carrying *1.8* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.00181* square inches total sectional area

Cargo light cables carrying *4.3* Amperes, comprised of *7* wires, each *22* L.S.G. diameter, *.00431* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables are insulated with pure rubber, vulcanised & taped, and protected by iron tubing, & wood casing in cabins.

Joints in cables, how made, insulated, and protected *Running joints (in inspection boxes) soldered, & insulated by rubber tape & prepared waterproof tape.*

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 *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 *In galvanised iron tubes, clipped to beams.*

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 *Iron tubing*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Iron tubing*

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

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

How are cables carried through beams *In screwed iron tubes through bulkheads, &c. Nut + washer each side.*

How are cables carried through decks *In screwed iron tubes with nut + washer on each side.*

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 *Iron tubing*

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 *Plug + socket connection*

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 ☒

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 installation is ☒ supplied with a voltmeter and ☒ an amperemeter, fixed *on switch board*

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 *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.

Campbell & Johnson

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *40 feet*

Distance between dynamo or electric motors and steering compass *36 feet*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>1</i>	<i>2</i>	<i>6</i>	<i>6</i>
<i>1</i>	<i>3</i>	<i>6</i>	<i>6</i>
<i>4</i>	<i>6</i>	<i>6</i>	<i>6</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 *nil* course in the case of the standard compass and *nil* degrees on *nil* course in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

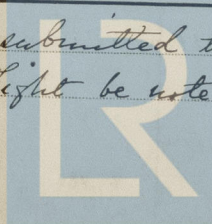
This Electric Lighting Installation has been fitted on board in accordance with the Rules & tested with satisfactory results.

J. Kerr

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

Committee's Minute

It is submitted that the Record Rec. Light be noted in the Reg. Book



Lloyd's Register Foundation

26.7.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 1.