

India

India

Rpt. 13.

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# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 30267.

Port of Glasgow Date of First Survey 14-4-11 Date of Last Survey 6-6-11 No. of Visits 11  
 No. in Reg. Book 1 on the Iron or Steel Flou Propelling Dredger "India" belonging to London  
 Built at Parsley By whom Thomson & Ferguson & Co When built 1911  
 Owners Port of London Authority Owners' Address London  
 Yard No. Electric Light Installation fitted by Telford Gries & Mackay When fitted 1911

Suppl. Sailing Chart

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Engine single cylinder vertical on common bed plate with a compound wound Dynamo  
 Capacity of Dynamo 80 Amperes at 100 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed main Engine room Whether single or double wire system is used Double  
 Position of Main Switch Board Engine room having switches to groups of from 4 to 12 lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each \_\_\_\_\_

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 \_\_\_\_\_  
 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

Total number of lights provided for 73 arranged in the following groups:—

Group	Description	Wires	Current (A)	Power (Candle)	Power (Amperes)
A	Port lights each of	5-32	6.0	6.0	Amperes
B	Stern Cluster lights each of	5-32	6.0	6.0	Amperes
C	Midships " " lights each of	5-32	6.0	6.0	Amperes
D	Engine room lights each of	12-16	7.2	7.2	Amperes
E	Stokehold lights each of	8-16	4.8	4.8	Amperes
F	Crew lights each of	5-16	3.0	3.0	Amperes
G	Officers lights each of	9-16	5.4	5.4	Amperes
H	Galley etc. lights each of	5-16	3.6	3.6	Amperes
I	Hoisting Engine lights each of	4-16	2.4	2.4	Amperes
J	Stokers' Mast-head light with etc. lamps each of	5-16	3.6	3.6	Amperes
K	Side light with _____ lamps each of _____				Amperes
L	Cargo lights of _____				Amperes

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 70 Amperes, comprised of 19 wires, each 15 L.S.G. diameter, .097 square inches total sectional area  
 Branch cables carrying 6 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .007 square inches total sectional area  
 Branch cables carrying 4 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .007 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 rubber taped & braided and coated with preservative compound  
 Joints in cables, how made, insulated, and protected In iron boxes soldered taped with two layers of rubber tape & two layers of waterproof tape coated with preservative compound  
 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  
 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 Steel tubes



**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 *Steel tubes*

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

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

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

How are cables carried through beams *Steel tubes* through bulkheads, &c. ✓

How are cables carried through decks *In tubes 15" above deck*

Are any cables run through coal bunkers — or cargo spaces — 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 *none*

Where are the main switches and cut outs for these lights fitted *none*

If in the spaces, how are they specially protected *none*

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 *yes*

The installation is *yes* supplied with a voltmeter and *yes* an amperemeter, fixed *on main 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 *97%* per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than *1750 megohms* 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.

*Jelford Grier & Maday Ltd* Electrical Engineers Date

**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	Amperes	feet from standard compass	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 Fleming & Ferguson Ltd* Builder's Signature. Date

**GENERAL REMARKS.**

*Plus Installation has been fitted on board under Special Survey & tested under full working condition & found satisfactory*

*JWD 17/11/11*

*W. Calderwood Muir*

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

Committee's Minute

*Elec. Light.*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Im. 87.

LMA 11/11/11