

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 55237

Port of Newcastle-on-Tyne Date of First Survey 4.8.08 Date of Last Survey 7.8.08 No. of Visits 4
 No. in Reg. Book 1176 on the Iron or Steel S.S. Sir Walter Scott Port belonging to Newcastle-on-Tyne
 Built at Blyth By whom Blyth Sh. & Dr. Sh. Co. Ltd When built 1908
 Owners Messrs J. O. Scott Owners' Address Newcastle
 Yard No. 143 Electric Light Installation fitted by Siemens Bros Dynamics Works Ltd. W/C When fitted August 1908

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Single Cylinder Double Acting Open Type by Messrs. Robey. Speed 125 R.P.M. Steam Pressure 90 lb sq"

Capacity of Dynamo 45.5 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Starboard side of Engine Room Whether single or double wire system is used Double wire

Position of Main Switch Board Do having switches to groups 4 Circuits of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each one 8 Way Distribution Box situated in Chart Room, two 4 Way Dist Boxes in Engineers Passage - Star Side, one 2 Way Dist Box in Fore-cabin, & one 4 Way Dist Box in Engine Room

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

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 77 arranged in the following groups:—

A	13	lights each of	6-32 & 7-16	candle power requiring a total current of	9	Amperes
B	15	lights each of	16	candle power requiring a total current of	7½	Amperes
C	25	lights each of	16	candle power requiring a total current of	13	Amperes
D	24	lights each of	16	candle power requiring a total current of	11½	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	2	Mast head light with	1 lamps each of 32	candle power requiring a total current of	2	Amperes
	2	Side light with	1 lamps each of 32	candle power requiring a total current of	2	Amperes
	4	Cargo lights of	6-16	candle power, whether incandescent or arc lights.	Incandescent	

If arc lights, what protection is provided against fire, sparks, &c. No arc lights

Where are the switches controlling the masthead and side lights placed Chart Room

DESCRIPTION OF CABLES.

Main cable carrying	41	Amperes, comprised of	19	wires, each	14	L.S.G. diameter, .09372 square inches total sectional area
Branch cables carrying	9	Amperes, comprised of	7	wires, each	20	L.S.G. diameter, .007 square inches total sectional area
Branch cables carrying	13½	Amperes, comprised of	7	wires, each	20	L.S.G. diameter, " square inches total sectional area
Leads to lamps carrying	5	Amperes, comprised of	1	wires, each	18	L.S.G. diameter, .0018 square inches total sectional area
Cargo light cables carrying	3½	Amperes, comprised of	7	wires, each	22	L.S.G. diameter, .00423 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

When run in conduit the cables are insulated with vulcanized india rubber then tapes braided & compounded overall 600 megohm grade
These cables are not run in tubing they are insulated as above and lead covered 600 megohm grade
 Joints in cables, how made, insulated, and protected Soldered & Thoroughly Taped

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

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 Lubric & Lead Covered



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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 in tubing

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

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

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

How are cables carried through beams Bushes through bulkheads, &c. flanges

How are cables carried through decks Iron deck tubes

Are any cables run through coal bunkers No or cargo spaces Yes or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected Tubing

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage none

If so, how are the lamp fittings and cable terminals specially protected

Where are the main switches and cut outs for these lights fitted On Lintellboard in Engine Room

If in the spaces, how are they specially protected Fuses in Deckwood Boxes

Are any switches or cut outs fitted in bunkers No

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

The installation is both supplied with a voltmeter and also an amperemeter, fixed on main Lintellboard in Engine Room

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.

Messrs. Siemens Bros Dynamo Works Electrical Engineers Date Sept 1st 1908

COMPASSES.

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

Distance between dynamo or electric motors and steering compass 60

The nearest cables to the compasses are as follows:—

2 A cables carrying <u>1/2</u> Amperes <u>connected to lamp holder in Compass head</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 1/2 degrees on _____ course in the case of the standard compass and 1/2 degrees on _____ course in the case of the steering compass.

Per Pro THE BLYTH SHIPBUILDING & DRY DOCK CO. LD

G. A. Dryden Joyce Builder's Signature. Date _____

GENERAL REMARKS.

This installation has, as far as can be seen, been fitted in accordance with the Rules & Circulars of this Society

G. A. Dryden Joyce

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

Committee's Minute _____

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



Lloyd's Register Foundation
13.11.08

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13-2m.34.