

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5956

Port of Selkirk Date of First Survey June 24th Date of Last Survey Aug. 3rd No. of Visits 5
 No. in Reg. Book on the Iron & Steel Port belonging to Liverpool
 Built at Selkirk By whom Harland & Wolff Ltd When built 1905
 Owners Wm. Blackbank Owners' Address Liverpool
 Yard No. 369 Electric Light Installation fitted by W. H. Allen & Co. Ltd When fitted 1905

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 engines having cylinders 6" diameter x 6" stroke, 2 dynamos multipolar type compound wound.

Capacity of Dynamo 60 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed on starting platform, starboard side

Position of Main Switch Board on bulkhead over dynamos having switches to groups A, B, C, D, E of 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 — 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 100 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 — arranged in the following groups:—

A Accom + Signals ³⁸ lights each of	16	candle power requiring a total current of	22.8	Amperes
B Engine Room 42 lights each of	16	candle power requiring a total current of	25.2	Amperes
C Forecastle 6 lights each of	16	candle power requiring a total current of	3.6	Amperes
D Poop 18 lights each of	16	candle power requiring a total current of	10.8	Amperes
E Cargo as below lights each of		candle power requiring a total current of		Amperes
2 Mast head lights with 1 lamp each of	32	candle power requiring a total current of	1.2	Amperes
* 2 Side light with 1 lamp each of	32	candle power requiring a total current of	1.2	Amperes
4 Cargo lights & each of 8	16	candle power, whether incandescent or are lights incandescent.		

If arc lights, what protection is provided against fire, sparks, &c. Two arc lamps, included in Surg Canal Plant totally enclosed in lanterns with glass sides protected by wire netting

Where are the switches controlling the masthead and side lights placed in Chart House

DESCRIPTION OF CABLES.

Main cable carrying	60	Amperes, comprised of	19	wires, each	16	L.S.G. diameter, .0624 square inches total sectional area
Branch cables carrying	22.8	Amperes, comprised of	7	wires, each	16	L.S.G. diameter, .0229 square inches total sectional area
	25.2		19		18	.035
Branch cables carrying	10.8	Amperes, comprised of	4	wires, each	18	L.S.G. diameter, .0129 square inches total sectional area
	4		7		22	.0043
Leads to lamps carrying	3	Amperes, comprised of	1	wires, each	16	L.S.G. diameter, .0032 square inches total sectional area
Cargo light cables carrying	4.8	Amperes, comprised of	145	wires, each	38	L.S.G. diameter, .0043 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The conductor is insulated with two layers Pure Para Rubber, then one layer vulcanizing rubber, the whole vulcanized together + finally taped + braided, wires in machinery spaces after vulcanizing are lead covered sewed + spirally armoured with G.I. wires. Joints in cables, how made, insulated, and protected thoroughly soldered, insulated with two layers pure rubber and two layers prepared tape + varnished

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 in strong wood casing

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 none

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat none near undue heat

What special protection has been provided for the cables near boiler casings lead covered, sewed + armoured with G.S. wires

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

How are cables carried through beams in five ferrules through bulkheads, &c. in five ferrules

How are cables carried through decks in G.S. pipes bushed with fibre

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

If so, how are they protected in strong wood casing

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 portable How fixed —

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel screwed to yoke of magnet

How are the returns from the lamps connected to the hull soldered to 3/8" brass earth screws

Are all the joints with the hull in accessible positions yes

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 switchboard

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 2500 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 W. H. Allen, Son & Co Ltd

Electrical Engineers

Date Aug 1905

COMPASSES.

Distance between dynamo or electric motors and standard compass 104 feet

Distance between dynamo or electric motors and steering compass 110 feet

The nearest cables to the compasses are as follows:—

A cable carrying 22.8 Amperes 24 feet from standard compass 24 feet from steering compass

A cable carrying The above is double wired 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 every course in the case of the

standard compass and nil degrees on every course in the case of the steering compass.

For Harland & Wolff Ltd

Builder's Signature.

Date 4th Sept 1905

GENERAL REMARKS.

This installation appears to be of good description, and has been fitted in accordance with the Rules.

R. J. Breridge

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

Committee's Minute —

It is submitted that this installation appears to be satisfactory



Lloyd's Register Foundation

5.9.05

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 11.