

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6278

Port of Belfast Date of First Survey Nov. 28th Date of Last Survey Jan 8th No. of Visits 7
 No. in 1 on the Iron or Steel St. Pierre Leone Port belonging to London
 Reg. Book Built at Belfast By whom Harland & Wolff Ltd. When built 1907
 Owners British & African S. S. Co. Ltd. Address Liverpool
 Yard No. 384 Electric Light Installation fitted by W. H. Allen & Son Ltd. When fitted 1907

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One engine having cylinder 8" diameter by 7" stroke coupled direct to one four pole compound wound dynamo.

Capacity of Dynamo 120 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed on starting platform starboard side

Position of Main Switch Board starboard side starting platform (near dynamo) having switches to groups A.B.C.D.E.F.G.H. 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 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 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 180 arranged in the following groups:—

A Signals Saloon	43 lights each of	16	candle power requiring a total current of	25.8	Amperes
B Forecastle	20 lights each of	16	candle power requiring a total current of	12.0	Amperes
C Despatch	20 " " "	16	" " " " " " " "	12.0	"
D Poop	19 lights each of	16	candle power requiring a total current of	11.4	Amperes
E Machinery Space	42 " " "	16	" " " " " " " "	25.2	"
F Cargo lights as under	lights each of	8 & 16	candle power requiring a total current of	19.2	Amperes
G Deck light	" " "	"	" " " " " " " "	25.0	"
H Deck light	lights each of	"	candle power requiring a total current of	25.0	Amperes
2 Mast head light 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 arc lights incandescent

If arc lights, what protection is provided against fire, sparks, &c. 2 arc lamps totally enclosed in iron framed lanterns with glass sides protected with suitable wire guards.

Where are the switches controlling the masthead and side lights placed in wheelhouse under Bridge

DESCRIPTION OF CABLES.

Main cable carrying	120 Amperes, comprised of	37 wires, each	16 L.S.G. diameter, .1176 square inches total sectional area
Branch cables carrying	25 Amperes, comprised of	7 wires, each	15 L.S.G. diameter, .02822 square inches total sectional area
" " "	19.2 " " "	7 " " "	16 " " " .02227 square inches total sectional area
Branch cables carrying	11.4 Amperes, comprised of	7 wires, each	18 L.S.G. diameter, .01257 square inches total sectional area
Leads to lamps carrying	3 Amperes, comprised of	1 wire each	16 L.S.G. diameter, .005217 square inches total sectional area
Cargo light cables carrying	4.8 Amperes, comprised of	145 wires, each	38 L.S.G. diameter, .0042 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The conductor is tinned, covered with one layer pure Para rubber, then two layers vulcanizing rubber, the whole vulcanized together finally taped straitened. In machinery space the wires after vulcanizing are lead covered & are specially armoured with 6.9 wires. Joints in cables, how made, insulated, and protected thoroughly soldered insulated with two layers pure Para rubber two layers prepared tape then 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 except in hold where

They are enclosed in galvanized iron piping

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 lead covered & externally braided, in iron pipes where necessary

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 & covered specially
What special protection has been provided for the cables in engine room } armoured with G.I. wires

How are cables carried through beams in fine fumes through bulkheads, &c. in fine fumes

How are cables carried through decks in G.I. pipes luted with fire

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

If so, how are they protected in G.I. pipe

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage yes 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

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 Bolt 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

W. H. Allen

Electrical Engineers

Date 12.3.07

COMPASSES.

Distance between dynamo or electric motors and standard compass 82 feet

Distance between dynamo or electric motors and steering compass 89 feet

The nearest cables to the compasses are as follows:—

A cable carrying 10.8 Amperes 10 feet from standard compass 6 feet from steering compass

A cable carrying Amperes The above double 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 any course in the case of the

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

For Harland & Wolff Ltd

Builder's Signature.

Date 18th March 1907

GENERAL REMARKS.

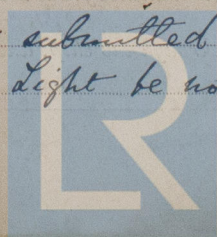
This installation has been fitted in accordance with the Rules, and appears to be of good description throughout

R. J. P. Devenish

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

Committee's Minute

It is submitted that the Record Elec. Light be noted in the Reg. Books.



Lloyd's Register
Foundation

22.3.07

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.