

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4921

Port of *Belfast* Date of First Survey *14th Aug 98* Date of Last Survey *6th Oct 98* No. of Visits *4*
 No. in Reg. Book *on the Iron or Steel S.S. Rippington Range* Port belonging to *London*
 Built at *Belfast* By whom *Norman Clark & Co. Ltd* When built *1898*
 Owners *Messrs. Hauldown Bros* Owners' Address
 Yard No. *148* Electric Light Installation fitted by *Globe Electrical Co. Ltd. London* When fitted *1898*

DESCRIPTION OF DYNAMO, ENGINE, ETC. *Open fronted Vertical inverted double acting Cylinders 9 1/2 x 9" Coupled direct on same bed plate to Antwerp Dynamo Compound wound and with Gramme Armature*

Capacity of Dynamo *400* Amperes at *65* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *Engine starting platform*

Position of Main Switch Board *2 ft from Engine* having switches to *five* Circuits of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *Saloon pantry 3 switches, Wheel house 10 switches, Engine room top platform 4 switches. Each circuit has a separate return to switchboard*

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 *Special tin* and constructed to fuse at an excess of *25%* 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 *given to Engineer*

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases *Slate or porcelain*

Total number of lights provided for *274* arranged in the following groups:—

A *Engine* 40 lights each of *16* candle power requiring a total current of *30* Amperes

B *Saloon* 40 lights each of *16* candle power requiring a total current of *30* Amperes

C *amidships* 50 lights each of *16* candle power requiring a total current of *37 1/2* Amperes

D *foreship* 40 lights each of *16* candle power requiring a total current of *30* Amperes

E *aftership* 20 lights each of *16* candle power requiring a total current of *15* Amperes

One Mast head light with *one* lamps each of *16* candle power requiring a total current of *17 1/2* Amperes

two Side light with *one* lamps each of *16* candle power requiring a total current of *1.50* Amperes

Six Cargo lights of *8 lamps* *16* candle power, ~~whether~~ incandescent or ~~are~~ lights *36* amperes
3 are lamps of *10 amperes* each *30*

If are lights, what protection is provided against fire, sparks, &c. *a strong opaque globe closed at bottom & wired*

Where are the switches controlling the masthead and side lights placed *Wheel house of lower bridge*

DESCRIPTION OF CABLES.

Main cable carrying *300* Amperes, comprised of *37* wires, each *N° 12* L.S.G. diameter, *3221* square inches total sectional area

Branch cables carrying *60* Amperes, comprised of *19* wires, each *N° 16* L.S.G. diameter, *8624* square inches total sectional area

Branch cables carrying *40* Amperes, comprised of *7* wires, each *N° 18* L.S.G. diameter, *4464* square inches total sectional area

Leads to lamps carrying *1* Amperes, comprised of *1* wires, each *N° 18* L.S.G. diameter, *10018* square inches total sectional area

Cargo light cables carrying *8* Amperes, comprised of *270* wires, each *N° 38* L.S.G. diameter, *0086* square inches total sectional area

are lamp cables 10 amperes 440 " " N° 38 " 0128

DESCRIPTION OF INSULATION, PROTECTION, ETC. *all wire & cables tinned double cotton covered 3 layers pure & vulcanizing rubber one tape all vulcanized together then braided & compounded. (Ozokerites) Engine room & Cattle Space Armour & lead covered*

Joints in cables, how made, insulated, and protected *all soldered using resin as a flux insulated up to original insulation,*

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 *all easily gettable*

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 *all above deck run in cargo space or bunkers, all in casings excepting in forward & after main which are led through galvanized iron pipes under main rail*

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 &

Armoured

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

there are no cables in hot places

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

Lead covered & from gas pipes

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

Lead covered & braided

How are cables carried through beams

hard wood ferrules through bulkheads, &c. brass stuffing boxes

How are cables carried through decks

from gas pipes jointed on to deck with flange

Are any cables run through coal bunkers

no

or cargo spaces

no

or spaces which may be used for carrying cargo, stores, or baggage

no

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

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

brass screw sockets

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 amperometer, fixed

on Main 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

2.000

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.

GLOBE ELECTRICAL COMPANY.

McKean & Co.

Electrical Engineers

Date

19 October 1898

COMPASSES.

Distance between dynamo or electric motors and standard compass

300 ft

Distance between dynamo or electric motors and steering compass

200 ft

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
20	30	20	
7	7	10	
1	12	9"	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

degrees on

course in the case of the

standard compass and

degrees on

course in the case of the steering compass.

THE WORKMAN, CLARK & CO., LIMITED

W. H. H. H.

Builder's Signature.

Date

GENERAL REMARKS.

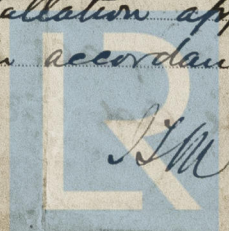
This installation appears to be in accordance with our Rules

R. J. B. B.

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

Committee's Minute

This installation appears to be fitted in accordance with the Rules.



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 11.