

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of Belfast Date of First Survey Nov 10 1897 Date of Last Survey 1st May 1898 No. of Visits 5
 No. in Reg. Book on the Iron or Steel J. S. S. "Monmouth" Port belonging to
 Built at Belfast By whom Harland & Wolff Ltd When built 1898
 Owners Elder Dempster & Co Ltd Owners' Address
 Yard No. B Electric Light Installation fitted by W. H. Allen, Son & Co When fitted 1898

DESCRIPTION OF DYNAMO, ENGINE, ETC.

W. H. Allen, Son & Co's Patent Compound dynamo coupled direct to single cylinder vertical type engine.
 Capacity of Dynamo 77 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed On lower platform of engine room between main engine & funnels
 Position of Main Switch Board on bulkhead at tunnel entrance 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 One switch board containing 11 switches controlling lights on cattle deck placed in passage at entrance to 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 single wire system
 Are the cut outs of non-oxidizable metal pure tin 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. porcelain and slate.
 Total number of lights provided for 190. arranged in the following groups:—

A	45.	lights each of	42 of 16.	candle power requiring a total current of	28.8	Amperes
B	48.	lights each of	16	candle power requiring a total current of	28.8	Amperes
C	42	lights each of	16	candle power requiring a total current of	25.2	Amperes
D	29	lights each of	16	candle power requiring a total current of	17.4	Amperes
E	26	lights each of	16	candle power requiring a total current of	15.6	Amperes
1	Mast head light with	1	lamps each of	32	candle power requiring a total current of	1.2
2	Side light with	1	lamps each of	32	candle power requiring a total current of	2.4
6	Cargo lights of		128	candle power, whether incandescent or are lights	incandescent	

 If are lights, what protection is provided against fire, sparks, &c. —

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

DESCRIPTION OF CABLES.

Main cable carrying Amperes, comprised of 37 wires, each 16 L.S.G. diameter, .1219 square inches total sectional area
 Branch cables carrying 28.8 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .0349 square inches total sectional area
 Branch cables carrying 5 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 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, .0072 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables insulated — Pure rubber. Vulcanising rubber to required thickness. India rubber proof tape the whole being vulcanised together. finally braided and compounded.
 Joints in cables, how made, insulated, and protected joints are all soldered and reinsulated with pure rubber tape. felt and opokriti tapes finally coated with insulating varnish.
 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 they are all accessible
 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 Cables in machinery spaces are armoured and sheathed clipped to bulkheads on deck are run 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

strong wood casing

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

"

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

Lead-lined & armoured cables

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

"

How are cables carried through beams

holes in beams bushed with fibre ferrules

through bulkheads, &c. bulkhead glands with fibre

How are cables carried through decks

galvanised iron duct pipes made watertight

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

the cable duct may be used for cargo at any time wood casing secured close up to duct protected by the cross

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

Cast iron fittings with strong covers in cable space

Are any switches or cut outs fitted in bunkers

no

Cargo light cables, whether portable or permanently fixed

portable

How fixed

to main winding

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

main winding bolted to field magnet through holding down bolts

How are the returns from the lamps connected to the hull

soldered to 3/8" brass screws tapped into the beams

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

examined & approved

applied with a voltmeter and

an amperemeter, fixed

Main Switch

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

2000

megohms

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 & Compy

J. W. Kempster

Electrical Engineers

Date May 20 1898

COMPASSES.

Distance between dynamo or electric motors and standard compass

112 feet

Distance between dynamo or electric motors and steering compass

106 "

The nearest cables to the compasses are as follows:—

A cable carrying

1.2

Amperes

7

feet from standard compass

3

feet from steering compass

A cable carrying

6.6

Amperes

8

feet from standard compass

10

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

all

course in the case of the

standard compass and

nil

degrees on

all

course in the case of the steering compass.

Harland & Wolff

Builder's Signature.

Date

17 May 1898

GENERAL REMARKS.

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