

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 5586

Port of Belfast Date of First Survey Feb 4 1903 Date of Last Survey 21 Mar 1903 No. of Visits 4
 No. in Reg. Book 100 on the Iron Steel Port belonging to Liverpool
 Built at Louth, Lerru By whom London W. J. P. Gay When built 1903
 Owners Birkenhead Corporation Owners' Address Birkenhead When fitted 1903
 Yard No. 52 Electric Light Installation fitted by W. Holmes & Co.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One $6\frac{1}{2} \times 6$ simple eng by "Yale" $13\frac{1}{2}$ HP 100 lbs 325 Rev coupled
 to one No 13 "Castle" dynamo frame patt comp & wound by GAA Rev
 Capacity of Dynamo 135 Amperes at 60 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed engine room of lights, &c., as below

Position of Main Switch Board new dynamo having switches to groups ABCD

Positions of auxiliary switch boards and numbers of switches on each 1-2 way section box in Ladies Saloon

1-4 way section box in engine room port side 1-3 way in crew space port

1-6 way in general saloon aft bulkhead port side

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 yes

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

Total number of lights provided for 116 arranged in the following groups:—

A Ladies Saloon 18 lights each of 16 candle power requiring a total current of 16.2 Amperes

B Eng room 21 lights each of 16 candle power requiring a total current of 18.9 Amperes

C Muster Saloon 34 lights each of 16 candle power requiring a total current of 28.9 Amperes

D General Saloon 42 lights each of 16 candle power requiring a total current of 37.8 Amperes

E lights each of 16 candle power requiring a total current of 1.8 Amperes

1 Mast head light with 1 lamp each of 32 candle power requiring a total current of 7.8 Amperes

2 Side lights with 1 lamp each of 32 candle power requiring a total current of 7.8 Amperes

✓ Cargo lights of ✓ candle power, whether incandescent or arc lights ✓

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

Where are the switches controlling the masthead and side lights placed Saloon

DESCRIPTION OF CABLES.

Main cable carrying 107 Amperes, comprised of 37 wires, each 16 L.S.G. diameter, .119 square inches total sectional area

Branch cables carrying 16.2 Amperes, comprised of 7 wires, each 17 L.S.G. diameter, .0170 square inches total sectional area

Branch cables carrying 28.9 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .0282 square inches total sectional area

Leads to lamps carrying .9 Amperes, comprised of 3 wires, each 22 L.S.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying ✓ Amperes, comprised of ✓ wires, each ✓ L.S.G. diameter, ✓ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables are insulated with pure rubber vulc'd taped & braided

& compounded

Joints in cables, how made, insulated, and protected spliced soldered & insulated and

protected by approved rubber tapes

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 no

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 iron pipes & 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

iron pipes
or of strong wood casing for

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

iron pipes

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

} iron pipes

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

How are cables carried through beams

insulating bushes

through bulkheads, &c.

stuffed boxes

How are cables carried through decks

deck tube

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

✓

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

✓

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

✓

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

with

an amperemeter, fixed

main bd

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.

J. H. Holmes & Co

Electrical Engineers

Date

17-4-03

7th

COMPASSES.

Distance between dynamo or electric motors and standard compass

about 70 ft -

Distance between dynamo or electric motors and steering compass

60 -

The nearest cables to the compasses are as follows:—

A cable carrying

about 15

Amperes

about 15

feet from standard compass

5 ft

feet from steering compass

A cable carrying

1

Amperes

7

feet from standard compass

20

feet from steering compass

A cable carrying

1

Amperes

10

feet from standard compass

10

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

courses in the case of the

standard compass and

Nil

degrees on

all

courses in the case of the steering compass.

FOR THE LONDON & LIVERPOOL & ENGINEERING CO. LTD.

W. H. Jones

Builder's Signature.

Date

April 20, 1903

GENERAL REMARKS.

Managing Director.

The of good description, and has been fitted in accordance with the Rules.

R. F. D. D. D.

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

Committee's Minute

It is submitted that this installation appears to meet the Rule requirements

30.4.03

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 11.