

17 MAY 1906

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 12815.

Port of WEST HARTLEPOOLDate of First Survey 18th Oct. 1905Date of Last Survey 24th Jan 1906No. of Visits 37

No. in

on the Iron or Steel

Reg. Book

7666

Built at

Hartlepool

By whom

Furness, Withy & Co. Ltd

When built

1906

Owners

Clyde, Irvine & Co.

Owners' Address

RasgowYard No. 288

Electric Light Installation fitted by

Furness, Withy & Co. LtdWhen fitted January 1906

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A Compound wound dynamo Coupled direct to single cylinder engine running at 200 revolutions per minute at 106 lbs steam pressure

Capacity of Dynamo

185

Amperes at

65

Volts, whether continuous or alternating current

Continuous

Where is Dynamo fixed

bottom platform of engine room

Whether single or double wire system is used

double

Position of Main Switch Board

near dynamo

having switches to groups

6

of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each

Forecastle 1 @ 3 Saloon 1 @ 4 + 2 @ 3Navigation 1 @ 12, Engineers accommodation 1 @ 6, Cargo 1 @ 6Engine room 1 @ 1 + 2 @ 6, After Accommodation 1 @ 4 + 1 @ 5

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

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

Yes

Total number of lights provided for

132

arranged in the following groups:—

A	18	lights each of	16	candle power requiring a total current of	16.2	Amperes
B	36	lights each of	16	candle power requiring a total current of	32.4	Amperes
C	18	lights each of	16	candle power requiring a total current of	16.2	Amperes
D	28	lights each of	16	candle power requiring a total current of	25.2	Amperes
E	32	lights each of	16	candle power requiring a total current of	32.4	Amperes
2	Mast head light with	1 lamp each of	32	candle power requiring a total current of	1.8	Amperes
2	Side light with	1 lamp each of	32	candle power requiring a total current of	1.8	Amperes

32 in 4 clusters, Cargo lights of 16 candle power, whether incandescent or are lights IncandescentIf arc lights, what protection is provided against fire, sparks, &c. Hexagon clear glass lanternsWhere are the switches controlling the masthead and side lights placed Chart house on bridge

DESCRIPTION OF CABLES.

Main cable carrying	186	Amperes, comprised of	37	wires, each	14	L.S.G. diameter,	.186	square inches total sectional area
Branch cables carrying	61.2	Amperes, comprised of	19	wires, each	16	L.S.G. diameter,	.0612	square inches total sectional area
Branch cables carrying	61.2	Amperes, comprised of	19	wires, each	16	L.S.G. diameter,	.0612	square inches total sectional area
Leads to lamps carrying	61.2	Amperes, comprised of	19	wires, each	16	L.S.G. diameter,	.0612	square inches total sectional area
Cargo light cables carrying	22.5	Amperes, comprised of	7	wires, each	16	L.S.G. diameter,	.0225	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Best Vulcanized rubber taped and braided, in iron pipes in 'tween decks & Stokhold, in wood casing in Engine room & fore & after accommodation & twin lead covered in Saloon

Joints in cables, how made, insulated, and protected

No joints

Are all the joints of cables thoroughly soldered, resin only having been used as a flux

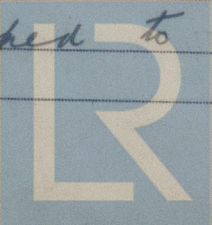
— Are all joints in accessible positions, none being

made in bunks, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage

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 iron pipes clipped to angleirons.Lloyd's Register
Foundation

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

wood casing

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

wood casing

How are cables carried through beams

fibre bushes

through bulkheads, &c.

How are cables carried through decks

iron 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

Iron pipes

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

✓

How are the returns from the lamps connected to the hull

✓

Are all the joints with the hull in accessible positions

✓

The installation is

supplied with a voltmeter and

an amperemeter, fixed

Main Switchboard

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 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

2000

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.

Per pro.

FURNESS, WITBY & CO., LIMITED

Electrical Engineers

Date

April 23rd 1906

COMPASSES.

Distance between dynamo or electric motors and standard compass

116 feet

Distance between dynamo or electric motors and steering compass

124 feet

The nearest cables to the compasses are as follows:—

A cable carrying

12.7

Amperes

8

feet from standard compass

14

feet from steering compass

A cable carrying

Amperes

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

course in the case of the

standard compass and

Nil

degrees on

course in the case of the steering compass.

Per pro.

FURNESS, WITBY & CO., LIMITED

Builder's Signature.

Date

April 23rd 1906

GENERAL REMARKS.

The electric installation of this vessel is fitted in accordance with the requirements of the rules & has been tested under full load & found satisfactory.
Thos. A. Houston

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. Book.

Lloyd's Register Foundation

17.5.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13.—2m.34.