

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 9333

Port of *Belfast* Date of First Survey *2<sup>nd</sup> mar.* Date of Last Survey *20<sup>th</sup> march* No. of Visits *8*  
 No. in Reg. Book *y. S. S. Inverlago* Port belonging to *London*  
 Built at *Belfast* By whom *Harland & Wolff Ltd* When built *1925*  
 Owners *Lago Ship Co Ltd* Owners' Address *Harland & Wolff Ltd* When fitted *1925*  
 Yard No. *699* Electric Light Installation fitted by *Harland & Wolff Ltd*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two single cylinder 5" diam x 2½" stroke forced lubrication engines each direct coupled to one 5 K.W. Dynamo running at a speed of 650 R.P.M.

Capacity of Dynamo *45.45* Amperes at *110* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *in Engine Room* Whether single or double wire system is used *Double*

Position of Main Switch Board *in Engine Room* having switches to groups *A. B. C. D. E. & F.* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *One in Engine Room with 6 switches and one in Wheelhouse with 4 switches.*

If fuses 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 cessel is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits *Yes*

Are the fuses of non-oxidizable metal *Yes* and constructed to fuse at an excess of *100* per cent over the normal current

Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases *Yes*

Total number of lights provided for *96* arranged in the following groups:—

A Lighting Machinery spaces	1 light of 660 C.P.	200	candle power requiring a total current of	9.36	Amperes
B Lighting Accommodation	32 lights each of 27 C.P. & 10-12" Cabin Lamps	27	candle power requiring a total current of	14.2	Amperes
C Officers Accommodation	6 each of 60 C.P.	27	candle power requiring a total current of	14.6	Amperes
D Wireless	3 " " " 100 C.P.	3	candle power requiring a total current of	11.36	Amperes
E Cargo: Tank & Chute	15 lights each of 27	27	candle power requiring a total current of	4.09	Amperes
F Spare Circuit	1 lamp each of 100	100	candle power requiring a total current of	9.09	Amperes
2 Side lights with	1 lamp each of 100	100	candle power requiring a total current of	1.818	Amperes
3-5 L Cargo lights each of	135		candle power, whether incandescent or are lights	56.337	incandescent

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

Where are the switches controlling the masthead and side lights placed *in Wheelhouse*

## DESCRIPTION OF CABLES.

Main cable carrying	45.45 Amperes, comprised of	19 wires, each	.052 S.W.G. diameter,	.04 square inches total sectional area
Branch cables carrying	19.7 Amperes, comprised of	7 wires, each	.044 S.W.G. diameter,	.01 square inches total sectional area
Branch cables carrying	9.36 Amperes, comprised of	7 wires, each	.036 S.W.G. diameter,	.007 square inches total sectional area
Leads to lamps carrying	3 Amperes, comprised of	3 wires, each	.036 S.W.G. diameter,	.003 square inches total sectional area
Cargo light cables carrying	1.3 Amperes, comprised of	110 wires, each	.0076 S.W.G. diameter,	.005 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables are of 600 megohm class & b. M.A. quality insulated with pure & vulcanized rubber & lead covered or lead covered steel armoured and braided.

Joints in cables, how made, insulated, and protected *No joints in Main cables. Those made in Branch*

Wiring are in properly constructed junction boxes of porcelain protected by cast iron covers

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances *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

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 protected by lead covered, steel armoured and braided, & passed through steel pipes along decks. In Accommodation they are clipped direct to Bulkhead, or iron plating & protected by lead covering, or lead covered steel armoured & braided.*



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 *Cables protected by lead covering, steel armouring & braided overall, those on exposed decks further protected by steel pipes.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Lead sheathed, armoured & braided.*

What special protection has been provided for the cables near boiler casings *Lead sheathed, armoured & braided.*

What special protection has been provided for the cables in engine room *Lead sheathed, armoured & braided.*

How are cables carried through beams *beams bushed with lead.* through bulkheads, &c. *in glands if M.T. otherwise lead bushed.*

How are cables carried through decks *in iron deck pipes.*

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 fuses for these lights fitted

If in the spaces, how are they specially protected

Are any switches or fuses 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

Is the installation supplied with a voltmeter

Yes.

and with an amperemeter

Yes

fixed on Switchboard.

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas

Yes.

Are any switches, fuses, or joints of cables fitted in the pump room or companion

No

How are the lamps specially protected in places liable to the accumulation of vapour or gas *Lamps in Gas-tight fittings*

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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.

Electrical Engineers

Date

23/4/25

COMPASSES.

Distance between dynamo or electric motors and standard compass *216 ft from Dynamos. & 20 ft to Wireless Rotary*

Distance between dynamo or electric motors and steering compass *214 " " " 9 1/4 ft " " "*

The nearest cables to the compasses are as follows:—

A cable carrying	3.	Amperes	8.	feet from standard compass	5.	feet from steering compass
A cable carrying	11.36.	Amperes	12.	feet from standard compass	6.	feet from steering compass
A cable carrying	11.6.	Amperes	20	feet from standard compass	12.	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

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

all.

course in the case of the steering compass.

Builder's Signature.

Date

GENERAL REMARKS.

*This installation is well fitted & in accordance with the Rules & was found satisfactory when tried under steam in full & overload.*

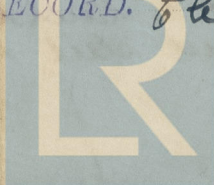
*See 1st Entry Report on Machinery.*

*William Butler.*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

It is submitted that this vessel is eligible for THE RECORD. *Per Light.*



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.