

		<u>L I G H T S</u>	<u>A M P S.</u>
A.	Saloon.	70	42
B	2nd. Saloon.	29	17.5
C	Forecastle.	25	15
D	Steerage.	70	43
E	1st. S.R. Outer.	36	22
F.	1st. S.R. Inner.	23	13
G	2nd. S.R. Outer.	16	9
H	2nd. S. R. Inner.	18	11
I	General.	37	25
J	General Aft.	21	12.5
K	Stores.	25	15
L	Decklights.	33	19
M	Daylights.	67	39
N	Daylight	105	63
O	Daylights.	45	27
P	Engine Room.	63	37
Q	Stokehold.	32	19
R	Cargo.	60	36
S	Arc Fwd.		25
T	Arc Midships.		25
U	Arc Aft.		25
V	Motor Fwd.		60
W	Motor Aft.		60

=====

SUPPLIMENTARY SHEET T. S. S. "ORONSA"

© 2021

Lloyd's Register
Foundation

W684-0020 1/2

rubber. The whole vulcanized together and finally taped & braided. In the
the wires, after vulcanizing are lead-covered & spliced.

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6162

Port of *Belfast* Date of First Survey *May 25th* Date of Last Survey *8th Aug* No. of Visits *13*
 No. in Reg. Book *SS. Cronin* Port belonging to *Liverpool*
 Built at *Belfast* By whom *Harling & Wolff L^d* When built *1906*
 Owners *Pacific Steam Nav. Co* Owners' Address *Liverpool*
 Yard No. *374* Electric Light Installation fitted by *A. H. Allen Son & Co L^d* When fitted *1906*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

3 Compound Engines having cylinders 10" and 17" dia. by 10" stroke direct coupled to compound four pole dynamos.

Capacity of Dynamo *400* Amperes at *100* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *in recess at after end of Engine Room. at middle platform level.*

Position of Main Switch Board *on after bulkhead of recess.* having switches to groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each

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 *100* 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 *778* arranged in the following groups:— as per supplementary sheet.

A	lights each of	candle power requiring a total current of	Amperes
B	lights each of	candle power requiring a total current of	Amperes
C	lights each of	candle power requiring a total current of	Amperes
D	lights each of	candle power requiring a total current of	Amperes
E	lights each of	candle power requiring a total current of	Amperes
<i>2</i>	<i>Mast head lights with 1 lamp each of 32</i>	<i>candle power requiring a total current of 2.4</i>	<i>Amperes</i>
<i>2</i>	<i>Side lights with 1 lamp each of 32</i>	<i>candle power requiring a total current of 2.4</i>	<i>Amperes</i>
<i>10</i>	<i>Cargo lights each of 6 of 16</i>	<i>candle power, whether incandescent or arc lights incandescent.</i>	

If are lights, what protection is provided against fire, sparks, &c. *also 3 arc lamps totally enclosed in lanterns*

Where are the switches controlling the masthead and side lights placed *in wheelhouse on bridge*

DESCRIPTION OF CABLES.

Main cable carrying *400* Amperes, comprised of *61* wires, each *12* L.S.G. diameter, *.532* square inches total sectional area

Branch cables carrying *42* Amperes, comprised of *19* wires, each *17* L.S.G. diameter, *.0477* square inches total sectional area

Branch cables carrying *22* Amperes, comprised of *7* wires, each *16* L.S.G. diameter, *.0229* square inches total sectional area

Leads to lamps carrying *3* Amperes, comprised of *1* wires, each *16* L.S.G. diameter, *.0032* square inches total sectional area

Cargo light cables carrying *3.6* Amperes, comprised of *145* wires, each *38* L.S.G. diameter, *.0042* square inches total sectional area

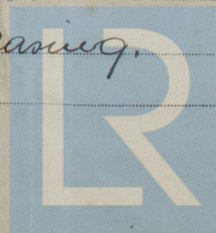
DESCRIPTION OF INSULATION, PROTECTION, ETC.

The conductor is tinned, covered with layer of pure Para rubber, then two layers vulcanizing rubber, the whole vulcanized together and finally taped & braided. In machinery spaces the wires, after vulcanizing, are lead covered served & spirally armoured with L.D. wires.
Joints in cables, how made, insulated, and protected thoroughly soldered, insulated with two layers of pure Para rubber, two layers prepared tape and varnished.

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 *Yes*

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 strong wood casing.*



© 2021

Lloyd's Register Foundation

W684-0020

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 *on open decks they are lead covered & on masts in iron pipes.*

What special protection has been provided for the cables near galley or oil lamps or other sources of heat *none near undue heat.*

What special protection has been provided for the cables near boiler casings } *Lead covered, served & spirally armoured*

What special protection has been provided for the cables in engine room } *with G.I. wires.*

How are cables carried through beams *in fibre faucles* ^{U.T.} *through bulkheads, &c. in glands with brass nuts.*

How are cables carried through decks *in G.I. pipes bushed with fibre.*

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 *strong wood casing.*

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 *portable.* How fixed _____

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *screwed to yoke of magnet.*

How are the returns from the lamps connected to the hull *soldered to 3/8" Brass screws.*

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 _____ supplied with a voltmeter and *3* *an amperemeter fixed on switch board.*

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 *2500* 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.

For W. G. Allen Son & Co Ltd

H. L. Foster.

Electrical Engineers

Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass *Dynamo 170 feet, after motor 90 feet Ford Motor 63 feet*

Distance between dynamo or electric motors and steering compass *Dynamos 165 feet, after motor 85 feet Ford motor 58 feet*

The nearest cables to the compasses are as follows:—

A cable carrying <i>15</i> Amperes <i>9</i> feet from standard compass <i>4</i> feet from steering compass
A cable carrying _____ Amperes <i>all double wired</i> 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 *every* course in the case of the standard compass and *nil* degrees on *every* course in the case of the steering compass.

For Harland & Wolff Ltd

Builder's Signature.

Date

30th August 1906

GENERAL REMARKS.

This installation is of good description and has been fitted in accordance with the Rules

R. F. Beveridge

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

1.9.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.