

006067-006074-01341/3

LETTER	POSITION	No OF SWIRL
A	Chart Room	4
B	Eng. Pass. aft. Main.	10
D	" " " "	4
G	Passage Aft Port	6
H	Eng. Pass. aft. Main.	10
J	1 <sup>st</sup> Cl. Vestibule Awn. Deck.	8
L	" " " "	8
M	Eng. Room Aft	8

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LETTER	CIRCUIT.	LIGHTS	MOTORS	RADIATORS	HEATERS	AMPS
A	Navigation & Officers	80				20
B	3 <sup>rd</sup> Cl. Mail Rm., & Engineers	298				70
C	Wireless					25
D	Emergency	95				25
E	Spare					
F	Spare					
G	Thermotank Ventilating		6			100
H	Ventilating Fans		9			73
J	Heating			5	2 Fires	30
K	Shore Connection					
L	1 <sup>st</sup> Cl. Accommodation	356	3			90
M	Engine Room	171				45

TOTALS

1000 Lights  
18 Motors  
5 Radiators  
2 Grills  
2 Fires } 455 Amps

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# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 41632

Port of *Glasgow*. Date of First Survey *9-6-21* Date of Last Survey *15-12-21* No. of Visits *4*  
 No. in Reg. Book *on the Iron or Steel SS 'SOOTIA'* Port belonging to *Dublin*  
 Built at *Dumbarton* By whom *Messrs W. Senny Bros* When built *1921*  
 Owners *L.N.W. Railway* Owners' Address  
 Yard No. *1037* Electric Light Installation fitted by *Messrs W. Senny Bros* When fitted *1921*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

TOTAL KW. - 106

*2-50 K.W. De-Laval Steam Generators, compound, wound, 1,500 Revs. 110 Volts.*

*One 6 KW. emergency petrol driven dynamo*

Capacity of Dynamo *455* Amperes at *110* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *Aft end of Engine Room* Whether single or double wire system is used *Double*

Position of Main Switch Board *Aft end of Engine Room* having switches to groups *12* of light &c., as below

Positions of auxiliary switch boards and numbers of switches on each

*See attached list.*

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 vessel 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 *1,000* arranged in the following groups:-

	lights each of	candle power requiring a total current of	Amperes
A			
B			
C			
D			
E			
<i>4</i>	<i>Mast head light with 1 lamps each of 32</i>	<i>candle power requiring a total current of 4.6</i>	<i>Amperes</i>
<i>4</i>	<i>Side light with 1 lamps each of 32</i>	<i>candle power requiring a total current of 4.6</i>	<i>Amperes</i>
<i>4</i>	<i>Cargo lights of 128</i>	<i>candle power, whether incandescent or arc lights Incandescent.</i>	

If arc lights, what protection is provided against fire, sparks, &c. *None fitted.*

Where are the switches controlling the masthead and side lights placed *In Chart Room.*

## DESCRIPTION OF CABLES.

Main cable carrying *456* Amperes, comprised of *2-37* wires, each *.103* S.W.G. diameter, *each .3* square inches total sectional area  
 Branch cables carrying *50* Amperes, comprised of *19* wires, each *.052* S.W.G. diameter, *.04* square inches total sectional area  
 Branch cables carrying *100* Amperes, comprised of *37* wires, each *.064* S.W.G. diameter, *.12* square inches total sectional area  
 Leads to lamps carrying *70* Amperes, comprised of *16* wires, each *.072* S.W.G. diameter, *.07* square inches total sectional area  
 Cargo light cables carrying *4* Amperes, comprised of *70* wires, each *.007* S.W.G. diameter, *.003* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

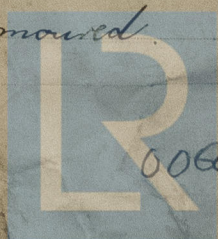
*Pure india rubber. Vulcanized & taped & lead covered. Protected by sheet iron where necessary.*

Joints in cables, how made, insulated, and protected *None.*

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances *None* 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 *Lead covered and Armoured*



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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 *Lead, covered and Armoured*

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

What special protection has been provided for the cables near boiler casings *asbestos covered wire*

What special protection has been provided for the cables in engine room *asbestos covered wire*

How are cables carried through beams *through lead bushes* through bulkheads, &c. *Watertight Glands*

How are cables carried through decks *through deck tubes*

Are any cables run through coal bunkers *No* or cargo spaces *Yes* or spaces which may be used for carrying cargo, stores, or baggage *Yes*

If so, how are they protected *Lead, covered and armoured*

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 fuses for these lights fitted

If in the spaces, how are they specially protected

Are any switches or fuses 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

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 *Main 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

Are any switches, fuses, 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 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.

*Messrs. Wm Denny Bros. Ltd*

Electrical Engineers

Date *30-12-21*

COMPASSES.

Distance between dynamo or electric motors and standard compass *160'-*

Distance between dynamo or electric motors and steering compass *160'-*

The nearest cables to the compasses are as follows:— *Light fitted on compass.*

A cable carrying *3* Amperes *9* feet from standard compass *12* feet from steering compass

A cable carrying *2* Amperes *in* feet from standard compass *in* 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 *any* course in the case of the standard compass and *Nil* degrees on *any* course in the case of the steering compass.

FOR WILLIAM DENNY & BROTHERS LIMITED

Builder's Signature.

Date

*18/3/22*

GENERAL REMARKS.

*This installation has been fitted on board under special survey. Tested under full working conditions found satisfactory.*

PAK - £31-4-0

a/c 24.12.21

It is submitted that this vessel is eligible for

PAID 27.12.21

RECORDED

Elec. Light.

*J. B. Rankin.*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW

28 MAR 1922

*Elec. Light.*



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN

*HC 27.3.22*

2m.11.10—Transfer.