

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 74221.

Port of Newcastle Tyne Date of First Survey 7/1/21 Date of Last Survey 24/2/21 No. of Visits 7

No. in Eastney on the Iron Steel Eastney Port belonging to London

Reg. Book Supp. 78772 Built at Newcastle By whom Horthumberland S. B.C. Ltd When built 1920

Owners Romney S.S. Co. Ltd Owners' Address _____

Yard No. 256 Electric Light Installation fitted by Campbell & Sherwood & Co. When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo makers Campbell & Sherwood & Co. single cylinder wound multipolar coupled direct to a Robey steam engine single cylinder open type.

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

Where is Dynamo fixed engine room starboard side Whether single or double wire system is used double

Position of Main Switch Board engine room on aft bulkhead Having switches to groups 6 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 6-way D.Box on starboard side of aft bulkhead of engine room, 6-way D.Box in steering engine recess, 3-way S.Box + 1-6-way D.Box in pantry, 1-6-way D.Box in crew quarters aft.

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 137 arranged in the following groups:—

A Saloon	56	lights each of 48-30 watt, 6-32 candle power requiring a total current of	21.12.	Amperes
B Messroom		lights each of	15	Amperes
C Aft	25	lights each of 30 watt candle power requiring a total current of	7.5	Amperes
D Engineers	27	lights each of 30 watt candle power requiring a total current of	8.1	Amperes
E Engine room	31	lights each of 30 watt candle power requiring a total current of	9.3	Amperes
F Mast	2	Mast head light with 1 lamps each of 32 candle power requiring a total current of	2.24	Amperes
	2	Side light with 1 lamps each of 32 candle power requiring a total current of	2.24	Amperes
G Cargo	5-6	lights Cargo lights of 30 watt candle power, whether incandescent or arc lights	incandescent	

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

Where are the switches controlling the masthead and side lights placed in chart house.

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 19 wires, each .088 S.W.G. diameter, .100 square inches total sectional area

Branch cables carrying 21.12 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, .007 square inches total sectional area

Branch cables carrying 15.0 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, .007 square inches total sectional area

Leads to lamps carrying .54 Amperes, comprised of 3 wires, each .029 S.W.G. diameter, .002 square inches total sectional area

Cargo light cables carrying 1.8 Amperes, comprised of 40 wires, each .0076 S.W.G. diameter, .0017 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

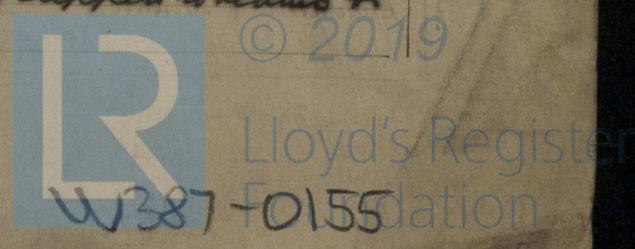
Dynamo leads are V.I.R. Engine room V.I.R. in conduit. Main leads through cargo spaces, holds etc are V.I.R. in conduit lead covered cables in cabins & saloon.

Joints in cables, how made, insulated, and protected none made

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances _____ 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 V.I.R. in conduit securely clipped to beams & girders.



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 V.I. Cable run in conduit

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

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

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

How are cables carried through beams lead hatched holes through bulkheads, &c. waterlight glands.

How are cables carried through decks waterlight iron deck pipes

Are any cables run through coal bunkers yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected V.I. R cables in conduit

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage to

If so, how are the lamp fittings and cable terminals specially protected to

Where are the main switches and fuses for these lights fitted to

If in the spaces, how are they specially protected to

Are any switches or fuses fitted in bunkers to

Cargo light cables, whether portable or permanently fixed flexible from waterlight socket How fixed clipped to bulkhead

In cessets fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel to

How are the returns from the lamps connected to the hull to

Are all the joints with the hull in accessible positions to

Is the installation supplied with a voltmeter yes and with an amperemeter yes, fixed on 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 to

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

How are the lamps specially protected in places liable to the accumulation of vapour or gas to

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.

CAMPBELL & ISHERWOOD, LTD.

Electrical Engineers

Date 19th March 1927

COMPASSES.

Distance between dynamo or electric motors and standard compass 86 feet

Distance between dynamo or electric motors and steering compass 82 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>6.72</u>	Amperes	<u>11</u>	feet from standard compass	<u>7</u>	feet from steering compass
A cable carrying	<u>.54</u>	Amperes	<u>on the</u>	feet from standard compass	<u>4</u>	feet from steering compass
A cable carrying	<u>.54</u>	Amperes	<u>4</u>	feet from standard compass	<u>on the</u>	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 course in the case of the standard compass and nil degrees on all course in the case of the steering compass.

FOR THE NORTHUMBERLAND SHIPBUILDING CO., LTD.

J. Murray Public Builder's Signature.

Date 21/3/27

GENERAL REMARKS.

The above installation is in accordance with the Society's Rules. This vessel is eligible in my opinion for notation elec light, wireless.

It is submitted that this vessel is eligible for elec light

W. T. Badger
25/3/27

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

