

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 74081.

Port of NEWCASTLE ON TYNE Date of First Survey 2/12/20 Date of Last Survey 23/12/20 No. of Visits 6
 No. in on the Steel Monte Levozo Port belonging to Venice
 Reg. Book 80540 Built at Newcastle on Tyne By whom Northumberland Ship^s. Co Ltd. When built 1920
 Owners Consorzio Veneziano di Armamento e Nav Owners' Address
 Yard No. 257 Electric Light Installation fitted by Campbell & Sherwood & Co When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Low pole compound wound dynamo coupled direct to a Robey single cylinder open type engine

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 starboard side aft bulkhead having switches to groups 6 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each engine room aft bulkhead 2-6 way dis boxes, lamp room forward 4-way dis box, pantry 1-6 way dis box + 1-3 way section box, Chart house 1-8 way dis box, crew quarters aft 1-6 way dis box.

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 154 arranged in the following groups:—

A	Marconi	lights each of		candle power requiring a total current of	<u>15.0</u>	Amperes
B	Saloon	62	lights each of <u>56-30 watt, 6-32</u>	candle power requiring a total current of	<u>23.62</u>	Amperes
C	Aft	24	lights each of <u>30 watt</u>	candle power requiring a total current of	<u>7.2</u>	Amperes
D	Engineers	35	lights each of <u>30 watt</u>	candle power requiring a total current of	<u>10.5</u>	Amperes
E	Engine room	33	lights each of <u>30 watt</u>	candle power requiring a total current of	<u>9.9</u>	Amperes
F	Space					
	2 Mast head light with	1	lamps each of <u>32</u>	candle power requiring a total current of	<u>2.4</u>	Amperes
	2 Side light with	1	lamps each of <u>32</u>	candle power requiring a total current of	<u>2.4</u>	Amperes
	6-6 light		Cargo lights of <u>16</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>	

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 37 wires, each 16 S.W.G. diameter, .1168 square inches total sectional area

Branch cables carrying 23.62 Amperes, comprised of 7 wires, each .0644 S.W.G. diameter, .0225 square inches total sectional area

Branch cables carrying 10.5 Amperes, comprised of 7 wires, each .052 S.W.G. diameter, .0145 square inches total sectional area

Leads to lamps carrying 1.2 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying 3.36 Amperes, comprised of 70 wires, each .0076 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Dynamo main V.I.R cable clipped to perforated plate. Main cables V.I. Rin steel conduit through cargo spaces, bunks, holes to crew space aft, engine stiles room & stores forward. Cabins, berths & saloon lead covered.

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 no 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 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 V.I. Rin Conduit 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 steel conduit with screwed connections

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat no

What special protection has been provided for the cables near boiler casings no

What special protection has been provided for the cables in engine room no

How are cables carried through beams bushed holes through bulkheads, &c. watertight glands

How are cables carried through decks iron deckpipes

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 run in steel conduit

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 flexible from watertight sockets How fixed clipped to bulkhead

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 —

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.

CAMPBELL & ISHERWOOD, LTD.

Electrical Engineers

Date 7th Jan 1921

COMPASSES.

Distance between dynamo or electric motors and standard compass 78 feet

Distance between dynamo or electric motors and steering compass 70 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>6.93</u>	Amperes	<u>10</u>	feet from standard compass	<u>13</u>	feet from steering compass
A cable carrying	<u>.56</u>	Amperes	<u>on the</u>	feet from standard compass	<u>3</u>	feet from steering compass
A cable carrying	<u>.56</u>	Amperes	<u>3</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 HUMBLED HUMBLED & CO. LTD.

W. T. Badger

Builder's Signature.

Date 25th Jan 1921

GENERAL REMARKS.

The above installation is in accordance with the Society's Rules. It has been tested and found satisfactory

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

W. T. Badger
7/2/21

W. T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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