

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of Genoa Date of First Survey Sept 11. 1922 Date of Last Survey 3/3/23 No. of Visits Five
 No. in Reg. Book 76326 on the ~~Iron or~~ Steel & "VIGOR" Port belonging to Genoa
 Built at Spezia By whom Arsaldo San Giorgio When built 1923
 Owners "La Columbia" S.A. Owners' Address Genoa
 Yard No. 201 Electric Light Installation fitted by Waldi + Compagnia When fitted 1923

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 sets each consisting of an enclosed single cylinder steam engine directly coupled to a compound wound dynamo.
 Capacity of Dynamo Nº1 138 Amperes at 110 Volts, whether continuous or alternating current Continuous
Nº2 104
 Where is Dynamo fixed ER. Platform - Starboard Side Whether single or double wire system is used Double
 Position of Main Switch Board Near Dynamo having switches to groups seven of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 203 switches Officers accomm^{nt} aft, 192 and 192 main acc. aft, 2 sets in ER, 2 sets in midships acc^{nt} 196 for Navigating Lights, 193 + 192 in midship quarters, 193 in fore-castle.
 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 accomm^{nt} arranged in the following groups; including plugs for portable lamps & fans.
 A Aft accomm^{nt} 92 lights, each of 32 candle power requiring a total current of 30 Amperes
 B Midship 72 lights, each of 32 candle power requiring a total current of 30 Amperes
 C " Fore 53 lights, each of 32 candle power requiring a total current of 30 Amperes
 D ER. 61 lights each of 32 candle power requiring a total current of 24 Amperes
 E Midship Main lights each of Motor candle power requiring a total current of 19 + 12 Amperes
2 Mast head light with 2 lamps each of 32 candle power requiring a total current of 3 Amperes
2 Side light with 2 lamps each of 32 candle power requiring a total current of 3 Amperes
4 Cargo lights of 5 lamps each of 32 candle power, whether incandescent or arc lights Incandescent.
 If arc lights, what protection is provided against fire, sparks, &c. None
 Where are the switches controlling the masthead and side lights placed Chart Room.

DESCRIPTION OF CABLES.

Main cable carrying	<u>138</u> Amperes, comprised of	<u>78</u> wires, each	<u>1.44</u> S.W.G. diameter,	<u>125</u> square inches total sectional area
Branch cables carrying	<u>30</u> Amperes, comprised of	<u>19</u> wires, each	<u>1.02</u> S.W.G. diameter,	<u>15</u> square inches total sectional area
Branch cables carrying	<u>15</u> Amperes, comprised of	<u>7</u> wires, each	<u>.91</u> S.W.G. diameter,	<u>4.57</u> square inches total sectional area
Leads to lamps carrying	<u>456</u> Amperes, comprised of	<u>1</u> wires, each	<u>1.6</u> S.W.G. diameter,	<u>2.01</u> square inches total sectional area
Cargo light cables carrying	<u>3</u> Amperes, comprised of	<u>64</u> wires, each	<u>.2</u> S.W.G. diameter,	<u>2.0</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

E.R. - Pure Rubber tape, lead covered, jute varnished.
Branch - " " " " steel braided
Cabin " " " " "
 Joints in cables, how made, insulated, and protected In water tight junction boxes.
 Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances No soldered joints 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 tubes under fore & aft passway.



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 Iron tubes and steel braiding

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

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

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

How are cables carried through beams Ferrules through bulkheads, &c. W.T. Glands ✓

How are cables carried through decks Iron tubes & W.T. Glands ✓

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 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 No

Cargo light cables, whether portable or permanently fixed portable How fixed W.T. Sockets

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 Board

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 Gas tight lamps in pump room

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.

G. A. Wain

Electrical Engineers

Date 26 April 1950

COMPASSES.

Distance between dynamo or electric motors and standard compass Instant

Distance between dynamo or electric motors and steering compass "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>1</u> Amperes	<u>10</u> feet from standard compass	<u>10</u> feet from steering compass
A cable carrying	<u>-</u> Amperes	<u>-</u> feet from standard compass	<u>-</u> feet from steering compass
A cable carrying	<u>-</u> Amperes	<u>-</u> feet from standard compass	<u>-</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 each course in the case of the standard compass and 0 degrees on each course in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

The Electric Light installation has been carried out under special survey and in accordance with the requirements of the Rules for Vessels carrying petroleum in bulk. The materials and workmanship are good, and the vessel is eligible, in our opinion to have the notation "Elec Light"

It is submitted that this vessel is eligible for Renewance for self & P.T. Brown
 Fee Lib 1950 1950 - £20-16/- THE RECORD. Elec light. JWD 3/5/50 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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