

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of GENOA Date of First Survey 19.4.22 Date of Last Survey 27.11.22 No. of Visits 8  
 No. in on the ~~Iron~~ Steel S.S. "FULGOR" Port belonging to  
 Reg. Book 60288 Built at Spezia By whom Cantiere Navale della Spezia When built 1922.  
 Owners "La Columbia" Soc. Mar. per Tra. Pet. Owners' Address  
 Yard No. 1 Electric Light Installation fitted by Vivaldi e Compagnia When fitted 1922.

## 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 No 1 138 Amperes at 110 Volts, whether continuous or alternating current continuous  
No 2 104  
 Where is Dynamo fixed E.R. platform on star. side Whether single or double wire system is used double  
 Position of Main Switch Board Adjacent dynamo having switches to groups seven of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each 2 of 3 switches Officers Acc. Aft; 1 of 3 and 1 of 2  
mens acc. aft; 2 of 4 in E.R.; 2 of 4 in centre acc.; 1 of 6 for navigation lights; 1 of 3 and 1 of 2  
in centre quarters; 1 of 3 in Forecastle  
 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 no.  
 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 including plugs for portable lamps and fans.  
 A After Accom. 92 lights each of 63 fixed, 21 portable, 8 fans 32 candle power requiring a total current of 30 Amperes  
 B Centre do. 72 lights each of 44 fixed, 20 portable, 8 fans 32 candle power requiring a total current of 20 Amperes  
 C Centre + Fore 55 lights each of 40 fixed, 15 portable 32 candle power requiring a total current of 30 Amperes  
 D Engine Room 61 lights each of 54 fixed, 7 portable 32 candle power requiring a total current of 24 Amperes  
 E Workshop lights each of motor candle power requiring a total current of 19 Amperes  
Marconi 14 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 32 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 chart room

## DESCRIPTION OF CABLES.

	Amperes, comprised of	wires, each	mm.	S.W.G. diameter,	mmq.	square inches total sectional area
Main cable carrying	138	78	1.4	125	mmq.	square inches total sectional area
Branch cables carrying	30	19	1.02	15	mmq.	square inches total sectional area
Branch cables carrying	15	7	.91	4.59	mmq.	square inches total sectional area
Leads to lamps carrying	46.6	1	1.6	2.01	mmq.	square inches total sectional area
Cargo light cables carrying	3	64	.2	2.0	mmq.	square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

E.R.: rubber (pure white/black) tape lead covered, jute and armoured.  
Branch do do and steel braided  
Cable do do  
 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 Iron tubes under flying bridge.



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 or

Steel haired cables in protected places.

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

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

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

How are cables carried through beams ferrules through bulkheads, &c. water tight glands.

How are cables carried through decks iron tube

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 2 in dry. bl. bunkers

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

Where are the main switches and fuses for these lights fitted darken boiler room

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 water tight 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 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 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 Special 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.

*James W. Smith*

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distant

Distance between dynamo or electric motors and steering compass

. do .

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 nil degrees on each course in the case of the steering compass.

*James W. Smith*

Builder's Signature.

Date

17th Dec 1922

GENERAL REMARKS.

The electric installation of this vessel has been carried out under special survey and in accordance with the Rules for vessels carrying petroleum in bulk. The materials and workmanship are good and the installation, in my opinion, is worthy of a vessel classed with this Society.

**It is submitted that this vessel is eligible for THE RECORD.**

See Lit-1480.

*elec. Light*  
*A.H.P. 2/1/23*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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