

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 8141

Port of GENOA Date of First Survey 24.11.21 Date of Last Survey 23.2.22 No. of Visits 8
 No. in Reg. Book on the ~~Iron~~ Steel SS "RAPALLO" Port belonging to GENOA
 Built at RIVA TRIGOSO By whom SOC. ESER. BACINI When built 1922
 Owners SOCIETA' ESERCIZIO BACINI Owners' Address _____
 Yard No. 78 Electric Light Installation fitted by Dot. Gerolamo Bevilacqua When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 sets direct coupled compound wound dynamos driven by single cylinder steam engines each of 6 K.W. capacity
 Capacity of Dynamo 54 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Platform in Engine Room Whether single or double wire system is used double
 Position of Main Switch Board Aft bulkhead near dynamo switches to groups 6 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1 in E.R. with 8 switches; 1 officers accommodation with 8 switches; 1 mens accom. with 5 switches; 1 saloon with 8 switches; 1 bridge with 3 switches; 1 forward store with 3 switches; 1 navigation light in Chart room with 5 switches
 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

See Nov. 1951 for new installation fitted 1942

Total number of lights provided for 339 arranged in the following groups:—

A Engine Room	6 lights each of	32 candle power	requiring a total current of	10.8 Amperes
B Accommodation	126 lights each of	32 candle power	requiring a total current of	24.9 Amperes
C Saloon & For?	120 lights each of	32 candle power	requiring a total current of	24.0 Amperes
D Pump room	19 lights each of	32 candle power	requiring a total current of	33.8 Amperes
E Navigation	10 lights each of	32 candle power	requiring a total current of	2.0 Amperes
F. MARCONI				15 to 20 AMPERES
1 Mast head light with	2 lamps each of	32 candle power	requiring a total current of	5 Amperes
2 Side light with	2 lamps each of	32 candle power	requiring a total current of	1 Amperes
8 Cargo lights of 5 lamp each of	16 candle power,	whether incandescent or are lights	<u>incandescent</u>	

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	54 Amperes, comprised of	38 wires, each	1.25 mm S.W.G. diameter,	47.5 mm ² square inches total sectional area
Branch cables carrying	10.8 Amperes, comprised of	14 wires, each	.5 mm S.W.G. diameter,	7 mm ² square inches total sectional area
Branch cables carrying	24.9 " " " " " "	14 " "	.75 mm S.W.G. diameter,	10.92 mm ² square inches total sectional area
Branch cables carrying	24 Amperes, comprised of	14 " "	.78 mm S.W.G. diameter,	10.92 mm ² square inches total sectional area
Leads to lamps carrying	33.8 " " " " " "	14 " "	1.05 mm S.W.G. diameter,	14.7 mm ² square inches total sectional area
Leads to lamps carrying	5 Amperes, comprised of	1 wires, each	.78 mm S.W.G. diameter,	78 mm ² square inches total sectional area
Cargo light cables carrying	1 Amperes, comprised of	81 wires, each	S.W.G. diameter,	2 mm ² square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main & principal cables: Pure rubber, white & black rubber, tape, lead covered, paper, joints and armoured.
 Lamp leads: Rubber, tape & lead covered.
 Joints in cables, how made, insulated, and protected In water tight 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 All armoured and in protected places

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 Armoured cables in protected places

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

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

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

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

How are cables carried through decks through tubes ✓

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 ✓

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 none - lamps in pump room are gas tight

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.

Per [Signature] Electrical Engineers Date 20. 2. 22.

COMPASSES.

Distance between dynamo or electric motors and standard compass distant

Distance between dynamo or electric motors and steering compass "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>2</u> Amperes	<u>8</u> feet from standard compass	<u>8</u> feet from steering compass
A cable carrying	✓ Amperes	✓ feet from standard compass	✓ 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 each course in the case of the standard compass and nil degrees on each course in the case of the steering compass.

SOCIETA' ESERCIZIO BAGINI

p. p. dell'Esercizio Bagini

Builder's Signature. Date Feb. 24/1922

GENERAL REMARKS.

The electric installation of this vessel has been fitted under special survey and is in accordance with the Rules for vessels carrying petroleum in bulk. The workmanship and materials are good throughout and the installation has been tested under working conditions with satisfactory results.

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

Fee Lit. 1100.

[Signature] Surveyor to Lloyd's Register of Shipping. 1/3/22

Committee's Minute



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.