

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 16638

Port of New York Date of First Survey 3 Feb Date of Last Survey 6 Apr 19 No. of Visits 4
 No. in Reg. Book 246 on the Iron or Steel SS "TAPAJUL" EX "RAS ISSA" Port belonging to R. Janeiro
 Built at Sunderland By whom Osborne Graham & Co When built 1903
 Owners Lord Brasileiro Owners' Address _____
 Yard No. ✓ Electric Light Installation fitted by National Dry Dock & Repair Co When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

General Elec. Marine type Combination

Capacity of Dynamo 100 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Std side of lower Eng. room Whether single or double wire system is used Double

Position of Main Switch Board 2 ft from Generator having switches to groups 6 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each On upper Eng. room on level

with main deck along side of steering Eng. Pt. side.

4- switches on main sw. board 12- on auxiliary or panel board

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 22 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 No wire fuses used

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 127 arranged in the following groups:— Wireless 25-amp.

A Running lights each of Carbon 160 candle power requiring a total current of 10 Amperes

B Eng. room lights each of 32-25-W. candle power requiring a total current of 16 Amperes

C Deck's lights each of 30-25-W. candle power requiring a total current of 15 Amperes

D Forward quarters lights each of 10-25-W. candle power requiring a total current of 5 Amperes

E After quarters lights each of 11-25-W. candle power requiring a total current of 5½ Amperes

2 Mast head light with 2 lamps each of 32 candle power requiring a total current of 2 Amperes

2 Side light with 2 lamps each of 32 candle power requiring a total current of 2 Amperes

1-8 stern light 2 lamps each of 32 candle power requiring a total current of 2 Amperes

Cargo lights of 25-W.-each candle power, whether incandescent or arc lights incandescent

If arc lights, what protection is provided against fire, sparks, &c. No arc lamps

Where are the switches controlling the masthead and side lights placed Pilot house

DESCRIPTION OF CABLES.

Main cable carrying 80 Amperes, comprised of 2 wires, each # 6 B+8-9 52500 c-m S.W.G. diameter, 26,250 square inches total sectional area

Branch cables carrying 15 Amperes, comprised of 2 wires, each # 12 B+8-9 13122 c-m S.W.G. diameter, 6,530 square inches total sectional area

Branch cables carrying — Amperes, comprised of — wires, each # — B+8-9 — c-m S.W.G. diameter, — square inches total sectional area

Leads to lamps carrying 5 Amperes, comprised of 2 wires, each # 14 B+8-9 8192 c-m S.W.G. diameter, 4,107 square inches total sectional area

Cargo light cables carrying 3 Amperes, comprised of 2 wires, each # 12 B+8 13122 c-m S.W.G. diameter, 6,530 square inches total sectional area

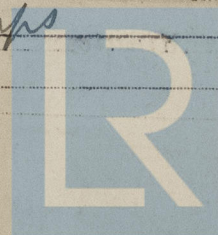
DESCRIPTION OF INSULATION, PROTECTION, ETC.

System installed with chrom. galvanized fibre lined pipe throughout. all standard Marine Vapor proof fittings
 Joints in cables, how made, insulated, and protected All splices soldered & insulated with rubber compound & Friction Tape painted with P. & B. compound.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances Yes 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 chrom. pipe & clamps



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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

Steam tight fixtures

pipe with

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

Pipe

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

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

Pipe

How are cables carried through beams

go under beams in pipe

through bulkheads, &c.

pipe joint water tight

How are cables carried through decks

joint water tight

Are any cables run through coal bunkers

or cargo spaces

Yes

or spaces which may be used for carrying cargo, stores, or baggage

Yes

If so, how are they protected

pipe

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

not in bunkers - Cargo space

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

Steam tight fixtures & pipe

Where are the main switches and fuses for these lights fitted

in panel board on deck

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

permanently

How fixed

pipe

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

Switch 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

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.

NATIONAL DRY DOCK & REPAIR CO., Inc.

Edward Bureau

Electrical Engineers

Date

May 20 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying

Amperes

feet from standard compass

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

The maximum deviation due to electric currents, etc., was found to be

degrees on

course in the case of the

standard compass and

degrees on

course in the case of the steering compass.

Builder's Signature.

Date

GENERAL REMARKS.

The above is a correct description of installation as fitted on board this vessel and appears to be in accordance with the Committee's Requirements

It is submitted that this vessel is eligible for

THE RECORD. ELEC. LIGHT.

RED Roll 20.6.19

H.D. Buchanan

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. Lt



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