

no. 7233.

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

Port of Leith

Received at London Office

FRI 9 JUN 1893

No. 7233 \*

No. in Name of Ship "La Viguesa" Built at Spain When built 1893

Reg. Book. ... Electric Light Installation fitted by Robert Scott & Mountain (Lim) when fitted June 93

## DESCRIPTION OF DYNAMO AND ENGINE.—

Two Pole Combined with

vertical high speed engine

Capacity of Dynamo 25 Amperes at 60 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed off of ship

## LAMPS.—

Is vessel wired on single or double wire system double Total number of lights 23 arranged in the following groups:—

A (Forward) 8 lights each of 16 candle power requiring a total current of 8 Amperes

B off 15 lights each of 16 candle power requiring a total current of 15 Amperes

C lights each of candle power requiring a total current of Amperes

D lights each of candle power requiring a total current of Amperes

E lights each of candle power requiring a total current of Amperes

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

2 Side light with 4 lamps each of 16 candle power requiring a total current of 4 Amperes included above

Cargo lights of candle power, whether incandescent or arc lights

If arc lights, what protection is provided against fire, sparks, &c.

## SWITCHES AND CUT-OUTS—

Position of Main Switch Board Engine Room off having switches to groups A + B of lights as above

Positions of other switch boards and numbers of switches on each

Individual Switch to each light except in double light fittings in side lights & Saloon where switches are fitted for each 2 lights = Cut out in each outlet

If cut outs are fitted to main circuit Yes. 8/p. and to each auxiliary circuit

and at each position where cable is branched or reduced in size Yes.

If vessel is wired on the double wire system are cut outs fitted on each wire Yes.

Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 50 per cent over the normal current

Are all cut outs fitted in easily accessible positions yes

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas Yes.

How are the lamps specially protected in places liable to the accumulation of vapour or gas Lights in Engine & Pump Room & Galley in air tight fittings.

Are all switches and cut-outs constructed of unflammable materials and fitted on unflammable bases Yes.

## DESCRIPTION OF CABLES.—

Main cable carrying 8 Amperes, comprised of 7 wires, each No 18. legal standard wire gauge diameter

Branch cables carrying 1 Amperes, comprised of 1 wires, each No 18. legal standard wire gauge diameter

Branch cables carrying 2 Amperes, comprised of wires, each No 16 legal standard wire gauge diameter

Leads to lamps Amperes, comprised of wires, each legal standard wire gauge diameter

Cargo light cables carrying Amperes, comprised of wires, each legal standard wire gauge diameter

The copper used has a conductivity of 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600. megohms per statute mile after 24 hours' immersion in seawater



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DESCRIPTION OF INSULATION, PROTECTION, &c.—

Joints in cables, how made, insulated, and protected

Rubber solution & specially prepared tape

Are all the joints of cables thoroughly soldered, resin only having been used as a flux

yes—

How are cables led throughout the ship

Cable for Lamps at Forward End of Ship lead to bulwark rail.

What special protection has been provided for the cables in open alleyways

In wood casing

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

In wood casing

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

no cables near boiler casing

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

— in engine room

How are cables carried through decks

Some carried through decks and through bulkheads through wood plugs & flanges.

Are any cables run through coal bunkers

no

or cargo spaces

no

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may be used for cargo

no

If so, how are they specially protected

Cargo light cables, whether portable or permanently fixed

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

TESTING, &c.—

Has the installation been thoroughly tested to its full capacity during a trial of

6

hours' duration

The insulation resistance of the whole installation was not less than

ohms

The installation is

supplied with a voltmeter

an ammeter, fixed

to Port of Bridge to Engine Room

General Remarks.—

There is no deflection on the Compasses as the wiring is run on the "double wire system" & the lead & return are in the same casing

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.

ERNEST SCOTT, & MOUNTAIN, LTD.

Electrical Engineers

Date

5<sup>th</sup> June 1893

COMPASSES.—

Distance between dynamo and standard compass

14 feet.

Distance between dynamo and steering compass

24 feet.

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.

Ernest Scott & Mountain Ltd

Builder's Signature

Date

June 7/6/93

H. Paulsen

Surveyor's Signature

Date



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