

REPORT ON ELECTRIC LIGHTING INSTALLATION.

Port of Newcastle

Received at London Office 18

No. 26361 *

No. in Name of Ship S.S. Silvio Spaventa Built at Newcastle When built 1891

Reg. Book.

Electric Light Installation fitted by J. H. Holmes & Co when fitted 1891

DESCRIPTION OF DYNAMO AND ENGINE.—

1 Single Cyl^r Engine 7"x6" coupled direct to Dynamo, giving 110 Amperes

Capacity of Dynamo 110 Amperes at 60 Volts, ~~whether~~ continuous or alternating current

Where is Dynamo fixed in Engine Room

LAMPS.—

Is vessel wired on single or double wire system Double wire Total number of lights 91 arranged in the following groups:—

A Saloon 27 lights each of 16 candle power requiring a total current of 27 Amperes

B Engine Room 18 lights each of 16 candle power requiring a total current of 18 Amperes

C Midships 14 lights each of 16 candle power requiring a total current of 14 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

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

H Cargo lights of Each 8x16 candle power, whether incandescent or arc lights Incandescent

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

SWITCHES AND CUT-OUTS—

Position of Main Switch Board Engine room bulkhead having switches to groups A. B. C. & Cargo of lights as above

Positions of other switch boards and numbers of switches on each _____

If cut outs are fitted to main circuit Yes and to each auxiliary circuit Yes

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

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 _____

How are the lamps specially protected in places liable to the accumulation of vapour or gas _____

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

DESCRIPTION OF CABLES.—

Main cable carrying _____ Amperes, comprised of _____ wires, each _____ legal standard wire gauge diameter

Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ legal standard wire gauge diameter

Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ legal standard wire gauge diameter

Leads to lamps 1000 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 2000 megohms per statute mile after 24 hours' immersion in seawater



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NWC 822-0154

DESCRIPTION OF INSULATION, PROTECTION, &c.—

Iron sheathed & Vulcanized wire

Joints in cables, how made, insulated, and protected *Twisted & soldered and insulated with wire rubber, tape &c and finally varnished*

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

How are cables led throughout the ship *In galvanized iron pipes through 2nd & 3rd decks & bunkers Engine room & Stow hold - Iron sheathed wire - Crew & Cabin spaces, in wood casing*

What special protection has been provided for the cables in open alleyways *strong wood casing*

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

What special protection has been provided for the cables near boiler casings *galvanized iron pipe*

What special protection has been provided for the cables in engine room *Iron sheathed wire*

How are cables carried through decks *Watertight deck pipes* and through bulkheads *by watertight brass flanges*

Are any cables run through coal bunkers *yes* or cargo spaces *yes* If so, how are they protected *galvanized iron pipe*

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 *portable* How fixed *Socket connections*

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 *Seven* hours' duration

The insulation resistance of the whole installation was ~~not less than~~ *very good - not sufficient time for actually measuring*

The installation is *not* supplied with a voltmeter and *not* an amperemeter, fixed *on switch board*

General Remarks.—

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.

J. W. Holmes & Co. Electrical Engineers

Date *Sept 25th 91*

COMPASSES.—

Distance between dynamo and standard compass *78 ft*

Distance between dynamo and steering compass *76 ft*

The nearest cables to the compasses are as follows:—

A cable carrying *3* Amperes *12 ft* feet from standard compass *10* 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 *all* course in the case of the standard compass and *Nil* degrees on *all* course in the case of the steering compass.

Palmer Shipbuilding & Repair Co. Ltd.
J. W. Holmes & Co. Builder's Signature Date *Oct 21 1891*
John Walburn Shipyard Manager. Surveyor's Signature

