

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 3484

Port of Genoa Date of First Survey Oct 13th 05 Date of Last Survey Nov 25th 05 No. of Visits 6
 No. in Reg. Book on the Iron or Steel S.S. "Mendoza" Port belonging to Genoa
 Built at Newcastle By whom Armstrong Whitworth & Co. Ltd When built 1904-11
 Owners Compagnia Lloyd Italiano Owners' Address Genoa
 Yard No. 100 Electric Light Installation fitted by L. E. Holmes & Co. of Newcastle
and modified by Soc. Tecnico Scienza Genoa When fitted 1904
Modified 1905

DESCRIPTION OF DYNAMO, ENGINE, ETC. 2 Compound Shunt Wound Dynamos (Castle Dynamos)
with vertical engines, as originally fitted (see Newcastle Surveyor's Report)

Capacity of Dynamos 3200 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where 3 Dynamos fixed In a recess of E. Room at top platform Port side Whether single or double wire system is used Double wire system
 Position of Main Switch Board near dynamos having switches to groups 12 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each near the main switch board in E. Room

If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits Yes
 Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 100 per cent over the normal current
 Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 479 arranged in the following groups:— as shown on attached list
 A _____ lights each of _____ candle power requiring a total current of _____ Amperes
 B _____ lights each of _____ candle power requiring a total current of _____ 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
2 Mast head light with 1 lamps each of 25 candle power requiring a total current of 1.6 Amperes
2 Side light with 1 lamps each of 16 candle power requiring a total current of 1.0 Amperes
8 Cargo lights of 16 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 In the chart room

DESCRIPTION OF CABLES. see attached list for details
2 Main cables carrying 165 (each) Amperes, comprised of 19 wires, each 12 L.S.G. diameter, 329.906 square inches total sectional area
 Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ square inches total sectional area
 Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ square inches total sectional area
 Leads to lamps carrying 1.8 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, 1.80 square inches total sectional area
 Cargo light cables carrying 13 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, 12.921 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.
Wires covered with a layer of india rubber, then with a separator, then with a layer of vulcanised india rubber, + then with a layer of india rubber coated tape. The whole then vulcanised together + covered with waterproof fibre.
 Joints in cables, how made, insulated, and protected Thoroughly soldered, and the insulation carefully carried out, all joints made

Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 In the engine room + amidship cabins in wooden coverings as originally arranged. In the hold, in emigrant spaces (where modified) in wooden battens.

Office fee - 10 Rendered 27/11/05
 Fee - 1-10 Paid 16/12/05
 Expenses - 2-2



W658-0157

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 *None exposed to moisture*

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

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

How are cables carried through beams *In wooden thimbles*

How are cables carried through decks *In iron pipes* through bulkheads, &c. *In stuffing boxes*

Are any cables run through coal bunkers *No* or cargo spaces *No* or spaces which may be used for carrying cargo, stores, or baggage *Yes. Holes are fitted for emigrants*

If so, how are they protected *In wood battens with screwed covers.*

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

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

Where are the main switches and cut outs for these lights fitted *In the engine room*

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers

Cargo light cables, whether portable or permanently fixed *Portable*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *How fixed*

How are the returns from the lamps connected to the hull *Single wire system*

Are all the joints with the hull in accessible positions

The installation is *Yes* supplied with *2* voltmeters and *2* amperemeters fixed *on Main & Board*

VESSELS BUILT FOR CARRYING PETROLEUM.

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 *Does not carry petroleum*

Are any switches, cut outs, 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 *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.

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.

Modified & fitted

SOCIETA' ESERCIZIO CAGINI

COMPASSES.

Distance between dynamo or electric motors and standard compass *50 feet*

Distance between dynamo or electric motors and steering compass *50 "*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>17.5</i>	Amperes	<i>20</i>	feet from standard compass	<i>20</i>	feet from steering compass
A cable carrying	<i>14.0</i>	Amperes	<i>30</i>	feet from standard compass	<i>30</i>	feet from steering compass
A cable carrying	<i>28.1</i>	Amperes	<i>25</i>	feet from standard compass	<i>25</i>	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 *no* degrees on *each* course in the case of the standard compass and *0* degrees on *each* course in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

The modifications made in this installation in order to fit the ship for carrying emigrants, have been examined during the work, & the materials & workmanship are good, & in accordance with the Society's rules

Maurice Pitton

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

It is submitted that this installation appears to be satisfactory.

R.S.

27.12.05

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

