

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5235

Port of *Trieste* Date of First Survey *May, 20* Date of Last Survey *Sep 14* No. of Visits *Six*
 No. in on the *Iron or Steel* *S. S. Marin* Port belonging to *Venice*
 Reg. Book *23405* Built at *Venice* By whom *Laut. Nav. e Armierie di Venezia* When built *1921*
 Owners *for Venezia di Nav. e Arm.* Owners' Address *Venezia*
 Yard No. *1000* Electric Light Installation fitted by *Laut. Nav. e Armierie di Venezia* When fitted *1921*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One self lubricating single cylinder steam engine coupled to a dynamo of 8 Kw.

Capacity of Dynamo *70* Amperes at *115* Volts, whether continuous or alternating current *continuous*

Where is Dynamo fixed *in engine room* Whether single or double wire system is used *double*

Position of Main Switch Board *near dynamo* having switches to groups *7* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *One with 10 one with 2 in E.R. One with 8 in the engine house. One with 8 and 2 with 2 in saloon. One with 4 one with 2 in fore-castle. One with 5 in chartroom. One with 2 in crew space.*

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*

Total number of lights provided for *176 except plugs* arranged in the following groups:—

A	5 metal	lights each of	25	candle power requiring a total current of	1.7	Amperes
B	41	"	lights each of 15 & 16 26 & 12	candle power requiring a total current of	7.2	Amperes
C	41	"	lights each of 6 & 16 35 & 12	candle power requiring a total current of	6.7	Amperes
D	49	"	lights each of 48 & 50 1 & 16	candle power requiring a total current of	31.5	Amperes
E	13	"	lights each of	12	candle power requiring a total current of	2.2
F	27	"	" " "	12	" " " " " " "	4.2
	2	Mast head light with	1	lamps each of	25	candle power requiring a total current of in circuit A
	2	Side light with	1	lamps each of	25	candle power requiring a total current of in circuit A
	48	Cargo lights of		50	candle power, whether incandescent or arc lights in circuit D	

If arc lights, what protection is provided against fire, sparks, &c. *no arc light. Wireless for 20 Amp.*

45 plugs attachment for portable lamps.

Where are the switches controlling the masthead and side lights placed *in chartroom*

DESCRIPTION OF CABLES.

Main cable carrying	70	Amperes, comprised of	19	wires, each	2.7mm S.W.G. diameter,	60	square inches total sectional area
Branch cables carrying	7.2	Amperes, comprised of	7	wires, each	1.1mm S.W.G. diameter,	7	square inches total sectional area
Branch cables carrying	4	Amperes, comprised of	1	wires, each	1.6mm S.W.G. diameter,	2	square inches total sectional area
Leads to lamps carrying	1/2	Amperes, comprised of	1	wires, each	1.32 & 0.78 S.W.G. diameter,	13 & 0.5	square inches total sectional area
Cargo light cables carrying	31.5	Amperes, comprised of	7	wires, each	1.9mm S.W.G. diameter,	20	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The wires are firmed, covered with two layers of rubber, paper cord, rubber tape, then lead, jute and armooring

Joints in cables, how made, insulated, and protected *in W.T. junction boxes*

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 *no*

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 *armoured and secured with secured clips*



© 2021

Lloyd's Register
Foundation

MS78-0078

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *no*

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *armoured as usual with lead*

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 *armoured*

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

How are cables carried through beams *attached to deck girders* through bulkheads, &c. *W.T. tubes*

How are cables carried through decks *W.T. tubes*

Are any cables run through coal bunkers *yes* or cargo spaces *yes* or spaces which may be used for carrying cargo, stores, or baggage *yes*

If so, how are they protected *armoured*

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 *with W.T. plugs*

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 *on main 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 *500* 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.

CANTIERI NAVALI ED ACCIAIERIE DI VENEZIA

Allygh

Ing. Villabruno

Electrical Engineers

Date *7/11/1921*

COMPASSES.

Distance between dynamo or electric motors and standard compass *about 230 feet*

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
<i>1.7</i>	<i>5</i>	<i>4</i>	<i>—</i>
<i>1/4</i>	<i>in the</i>	<i>feet from standard compass</i>	<i>in the feet from steering compass</i>
<i>—</i>	<i>Amperes</i>	<i>feet from standard compass</i>	<i>feet from steering compass</i>

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 *none* degrees on *—* course in the case of the standard compass and *—* degrees on *—* course in the case of the steering compass.

CANTIERI NAVALI ED ACCIAIERIE DI VENEZIA

Allygh

Ing. Villabruno

Builder's Signature.

Date *7/11/1921*

GENERAL REMARKS. *This installation has been made in accordance with the Rule, and it was arranged with the owners the whole installation should be tested in Cardiff. Surveyor advised.*

Fee 773
Exp 821
15 94

THE RECORD
Redeign
W. H. Stopp
Goodman & Stuparich
Surveyor to Lloyd's Register of Shipping.

Committee's Minute.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



© 2021

Lloyd's Register Foundation