

28 DEC 1925

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 53E.

Port of Helsingborg

Date of First Survey 4-11-1925

Date of Last Survey 17-12-1925. No. of Visits 9

No. in on the Iron or Steel S/S "VALENCIA"

Reg. Book Suppl.

41362

Built at Landskrona.

Port belonging to Solthemburg

Owners Rederiaktiebolaget Svenska Lloyd

By whom Nya Varvsakt. Öresund.

When built 1925

Yard No. 24.

Electric Light Installation fitted by Edo. Mattiasson, Nya Varvs A.B. Öresund, Landskrona. When fitted 1925

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct current dynamo, coupled to steam engine ✓

Capacity of Dynamo 66 ✓

Amperes at 110 ✓

Volts, whether continuous or alternating current continuous ✓

Where is Dynamo fixed in the engine room

Whether single or double wire system is used double ✓

Position of Main Switch Board in the engine room having switches to groups 10

of lights, &amp;c., as below

Positions of auxiliary switch boards and numbers of switches on each 1(A) of 8 groups in the saloon, 1(B) of 5 groups in the chart room, 1(C) of 4 groups in accomod. amidships, 1(D) of 4 groups in accomod. aft, (E) 4 switches on main switch board for E room, p.s., B-room and tunnel, 1(F) of 4 groups in the stern mast, 1(G) of 4 gr. in fore mast.

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 165 arranged in the following groups:—

A	51	lights each of 25	candle power requiring a total current of 13	Amperes
B	5	lights each of 32		
B C	33	lights each of 25	candle power requiring a total current of 5	Amperes
D	21	lights each of 25		
C E	23	lights each of 17 of 25 & 6 of 150	candle power requiring a total current of 5	Amperes
F	16	lights each of 25		
D G	16	lights each of 25	candle power requiring a total current of 12	Amperes
E		lights each of	candle power requiring a total current of	Amperes
X		Mast head light with 1 lamp each of 32		
1		after " " " 1 lamp each of 32		
X		Side light with 1 lamp each of 32	candle power requiring a total current of 10	Amperes
			candle power requiring a total current of 10	Amperes

Cargo lights of Sec F &amp; G.

candle power, whether incandescent or arc lights incandescent

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

Where are the switches controlling the masthead and side lights placed in the chart room.

## DESCRIPTION OF CABLES.

Main cable carrying 63	Amperes, comprised of 17	wires, each 1.53 mm S.W.G. diameter, 35 mm <sup>2</sup>	square inches total sectional area
Branch cables carrying 15	Amperes, comprised of 7	wires, each 1.05 " S.W.G. diameter, 6 "	square inches total sectional area
Branch cables carrying 12	Amperes, comprised of 7	wires, each 0.86 " S.W.G. diameter, 4 "	square inches total sectional area
Leads to lamps carrying 2-6	Amperes, comprised of 7	wires, each 0.67 " S.W.G. diameter, 2.5 "	square inches total sectional area
Cargo light cables carrying 6	Amperes, comprised of 7	wires, each 0.52 " S.W.G. diameter, 1.5 "	square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

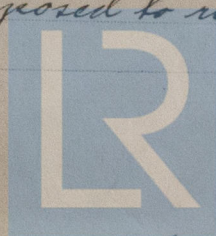
Cables are insulated with vulcanized rubber, lead covered with braiding and where necessary steel armoured with braiding over the armour.

Joints in cables, how made, insulated, and protected By porcelain boxes and, where required, by watertight metal 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 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 By metal clips and, where exposed to risk of mechanical damage, properly protected.



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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 *Armoured cables and, where required protected by steel pipes.*

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

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

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

How are cables carried through beams *Steel armoured and holes lead* <sup>bushed</sup> *through bulkheads, &c.* *A 2*

How are cables carried through decks *Through pipes.*

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

If so, how are they protected *Steel armoured and properly protected.*

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 *✓*

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 *1000* 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.

*Edw Mattiasson*

Electrical Engineers

Date *17-12-1925*

**COMPASSES.**

Distance between dynamo or electric motors and standard compass *Enorm to bridge*

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

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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.

*NYA VARVSÄKTILBOLAGET ÖRESUND*

Builder's Signature. Date *23-12-25*

**GENERAL REMARKS.**

*This electric lighting installation has been fitted onboard under my inspection and has been tested and found satisfactory. All the Rule requirements have been complied with.*

*It is submitted that*

*Free Nr. 132.13 Applied for 18-12-1925 this vessel is eligible for THE RECORD Elec. light. A Sundin*  
*Received 23-12-1925*  
*Surveyor to Lloyd's Register of Shipping.*

Committee's Minute

TUES. 5 JAN 1926

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN



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