

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 Reg. Book 41362 on the ~~Iron or Steel~~ S/S. "VALENCIA"
 Built at Landskrona Port belonging to Falshenborg
 Owners Rederiaktieb. Svenska Lloyd By whom Nya Varvsakt. Öresund When built 1925
 Yard No. 24 Owners' Address Falshenborg
 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, &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:—

Group	No. of lights	Candle power	Current (Amperes)
A	51	25	13
B	5	32	5
C	33	25	7
D	22	25	5
E	23	17 of 25 & 6 of 150	9
F	16	25	12
G	16	25	12
H	1	32	10
I	1	32	5
J	1	32	10

Cargo lights of Sec F & G 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.

Main cable carrying 63 Amperes, comprised of 17 wires, each 1.53 mm S.W.G. diameter, 35 mm² 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.

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 ^{bushed} through bulkheads, &c. 9°

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
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.

NYA VARVSÄKTIFÖLJAGET ÖRESUND

[Signature] 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

Fee No. - 132.13 Applied for 18-12-1925 this vessel is eligible for THE RECORD Elec. light. A Sundin
 Received 23-12-1925 [Signature] 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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