

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6923

Port of Göteborg Date of First Survey 24<sup>th</sup> Aug. 1925 Date of Last Survey 16<sup>th</sup> Sept. 1925 No. of Visits 8  
 No. in on the Iron or Steel M/S "Falsterbo" Port belonging to Gothenburg  
 Reg. Book 39007 Built at Göteborg By whom Eriksbergs Mek. Verkst. AB. When built 1925  
 Owners Ångbåtsaktiebolaget Ferm Owners' Address Kristinehamn  
 Yard No. M/S 214 Electric Light Installation fitted by Luth & Roséns Elektriska A/Bol. When fitted 1925

**DESCRIPTION OF DYNAMO, ENGINE, ETC.**

Converter from 220 volts continuous to 110 volts continuous current ✓

Capacity of Dynamo 127 ✓ 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 wire ✓

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

Positions of auxiliary switch boards and numbers of switches on each one (A) of 4 groups, in the after-accommodation, one (B) of 4 gr. on stern-mast, one (C) of 9 gr. in the officers-accommodation, one (D) of 8 gr. in the saloon-accommodation, one (E) of 5 gr. in the chart-room, one (F) of 4 gr. on fore-mast, one (G) of 10 gr. in the engine-room.

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 194 arranged in the following groups:—

<b>A</b>	<b>A</b>	29	lights each of	16 - 25	candle power requiring a total current of	7	Amperes
<b>B</b>	<b>B</b>	14		25-1000		12	
<b>C</b>	<b>C</b>	41	lights each of	16-1000	candle power requiring a total current of	14	Amperes
<b>D</b>	<b>D</b>	43		16-25		11	
<b>E</b>	<b>E</b>	5	lights each of	32	candle power requiring a total current of	5	Amperes
<b>F</b>	<b>F</b>	20	lights each of	25-1000	candle power requiring a total current of	12	Amperes
<b>G</b>	<b>G</b>	42	lights each of	25-100	candle power requiring a total current of	14	Amperes
<b>2</b>	Mast head light with	1	lamps each of	32	candle power requiring a total current of	2	Amperes
<b>2</b>	Side light with	1	lamps each of	32	candle power requiring a total current of	2	Amperes
<b>6</b>	Cargo lights of	150			candle power, whether incandescent or arc lights	incandescent	
<b>5</b>	" " "	1000			" " " " " " "	" " " " " " "	

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 79 ✓ Amperes, comprised of 19 wires, each 2.17 mm. S.W.G. diameter, 70 mm<sup>2</sup> square inches total sectional area

Branch cables carrying 12 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 1.05 " S.W.G. diameter, 6 " square inches total sectional area

Leads to lamps carrying 2 Amperes, comprised of 7 wires, each 0.52 " S.W.G. diameter, 1.5 " square inches total sectional area

Cargo light cables carrying 14 Amperes, comprised of 7 wires, each 1.35 " S.W.G. diameter, 10 " square inches total sectional area

**DESCRIPTION OF INSULATION, PROTECTION, ETC.**

Cables are insulated vulcanized rubber, lead armour covered with rubber tape,

Where necessary rubber tape and steel armour is used.

Joints in cables, how made, insulated, and protected by porcelainboxes and, where required, by watertight metalboxes.

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 steel clips, screwed fast and where required protected by ironpipes.



**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 protected by lead and steel armour.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat lead and steel armoured

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

What special protection has been provided for the cables in engine room lead and steel armoured

How are cables carried through beams armouring as above through bulkheads, &c. by watertight boxes

How are cables carried through decks through ironpipes

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 ironpipes where required

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 switchboard

**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 2000 <sup>kilometer 15° Celsius</sup> 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. 2000

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.

Electrical Engineers Date 10/10 1925.

**COMPASSES.** B. Chr. Christensen / Ross

Distance between dynamo or electric motors and standard compass Engine-room to flying bridge.

Distance between dynamo or electric motors and steering compass Engine-room to flying bridge.

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.

Eriksbergs Mek. Verkstads Aktiebolag

Builder's Signature. Date 16th October, 1925.

**GENERAL REMARKS.**

This electric installation has been fitted on board under our inspection and has been tested and found satisfactory. All the Rule requirements have been complied with.

It is submitted that this vessel is eligible for THE RECORD, Elec. Light.

JWD V. Hulow G. Branden

No. 66248 Applied for 15th Sept 1925. Received 23rd Sept 1925. Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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