

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5457

Port of Göteborg Date of First Survey 31st July Date of Last Survey 10th August 1923 No. of Visits 4
 No. in on the ~~Iron or Steel~~ S/S "Svartön" Port belonging to Stockholm
 Reg. Book 34338 Built at Lundholm By whom R. Thompson & Son When built 1906
 Owners Trafik AB, Grängesberg-Oxelösund Owners' Address Stockholm
 Yard No. Electric Light Installation fitted by Luth & Roséns Elektriska A/Bol. When fitted 1923.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Steam-turbine of 7 HP with compound wound generator ✓

Capacity of Dynamo 41 ✓ 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 6 ✓ of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each one (A) of 3 gr. in the after-accommodation, one (B) of 3 gr. in the officers-accommodation, one (C) of 4 gr. in the saloon-accommodation, one (D) of 5 gr. in the fore-castle, one (E) of 5 gr. in the chart-room, one (F) of 2 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 104 arranged in the following groups:—

| | | | | | | |
|---|----|----------------------|-----------------|--|--------------|---------|
| A | 19 | lights each of | 16-25 | candle power requiring a total current of | 4 | Amperes |
| B | 21 | lights each of | " | candle power requiring a total current of | 4.5 | Amperes |
| C | 23 | lights each of | " | candle power requiring a total current of | 4.5 | Amperes |
| D | 18 | lights each of | " | candle power requiring a total current of | 4 | Amperes |
| E | 5 | lights each of | " | candle power requiring a total current of | 5 | Amperes |
| F | 18 | lights each of | " | candle power requiring a total current of | 4 | Amperes |
| | 2 | Mast head light with | 1 lamps each of | candle power requiring a total current of | 2 | Amperes |
| | 2 | Side light with | 1 lamps each of | candle power requiring a total current of | 2 | Amperes |
| | 4 | Cargo lights of | 125 | 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 26 Amperes, comprised of 7 wires, each 1.71 S.W.G. diameter, 16 m/m² square inches total sectional area
 Branch cables carrying 5 Amperes, comprised of 7 wires, each 0.67 S.W.G. diameter, 2.5 " square inches total sectional area
 Branch cables carrying - Amperes, comprised of - wires, each - S.W.G. diameter, - square inches total sectional area
 Leads to lamps carrying 1.5 Amperes, comprised of 7 wires, each 0.52 S.W.G. diameter, 1.5 " square inches total sectional area
 Cargo light cables carrying 1.5 Amperes, comprised of 30 wires, each 0.25 S.W.G. diameter, 1.5 " square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables are insulated with 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 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 steel clips, screwed fast and where required protected by iron pipes. ✓

W438 - 0017



© 2020

Lloyd's Register Foundation

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 cables carried through / beams are steel armoured ✓

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 1000 megohms per statute kilometer 15° Celsius 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. 1000

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.

LUTH & ROSENS ELEKTRISKA AKTIEBOLAG

Electrical Engineers

Date 15/8 1923.

COMPASSES.

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.

Builder's Signature. Date

GENERAL REMARKS.

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

Fee: Kr 82.00 Applied for 16th Aug 1923

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



© 2020

Lloyd's Register Foundation