

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6850.

Port of Amsterdam Date of First Survey 16 August Date of Last Survey 15 Oct 1915 No. of Visits 13.

No. in Reg. Book 211 on the ~~Iron~~ Steel the twin screw 1 1/2 W. S. M. V. A. Port belonging to Groenewald
Built at Dordrecht By whom M. J. Scheepswijf Dordrecht When built 1915
Owners Med End Tankstoomboot Maatschappij Owners' Address Groenewald
Yard No. 23. Electric Light Installation fitted by Goeneveld Ruempold When fitted 1915

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Open interpole type direct coupled to a Kromhout Motor.

Capacity of Dynamo 26 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed in Motorroom P5 Whether single or double wire system is used double

Position of Main Switch Board Near dynamo having switches to groups 4 groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each in Distributing Room.

One P5 near dynamo, One Entrance messroom, One 2nd Engineers room, One chartroom, One in Engine room SB, One W.C. SB, One Carpenter workshop.

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 Both

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 60 lights arranged in the following groups :-

A	10	lights each of	16	candle power requiring a total current of	2.5	Amperes
B	6	lights each of	16	candle power requiring a total current of	1.5	Amperes
C	8	lights each of	16	candle power requiring a total current of	2.	Amperes
D	8	lights each of	16	candle power requiring a total current of	2.	Amperes
E	12	lights each of	16	candle power requiring a total current of	3	Amperes
1	Mast head light with 1	lamps each of	32	candle power requiring a total current of	0.5	Amperes
2	Side light with 2	lamps each of	32	candle power requiring a total current of	0.5	Amperes
4	Cargo lights of 4	lamps each of	16 C.P	candle power, whether incandescent or arc lights	<u>incandescent</u>	

If arc lights, what protection is provided against fire, sparks, &c. None

Where are the switches controlling the masthead and side lights placed in Chartroom

DESCRIPTION OF CABLES.

Main cable carrying 26 Amperes, comprised of 4 wires, each 67 S.W.G. diameter, .016 square inches total sectional area

Branch cables carrying 23.6 Amperes, comprised of 4 wires, each 19 S.W.G. diameter, .0096 square inches total sectional area

Branch cables carrying 1 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .0024 square inches total sectional area

Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .0024 square inches total sectional area

Cargo light cables carrying 1 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .0024 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper wire insulated with vulcanized india rubber (two heats) protected with braided cotton and tape, the whole vulcanized together. Armoured for cargo lights.

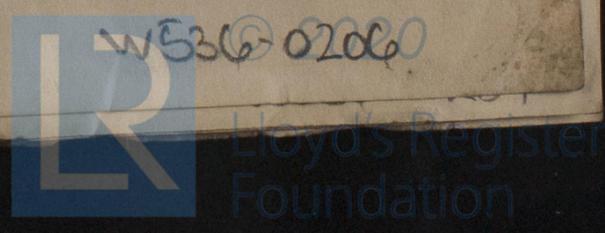
Joints in cables, how made, insulated, and protected None

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 wood shells. Steel tubing

Water Capacity
Tons.
16 23 1/2
of Visits 38



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 wire in steel tubes.
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat protected, with steel tubes.
 What special protection has been provided for the cables near boiler casings ✓
 What special protection has been provided for the cables in engine room Armoured wire in steel tubes.
 How are cables carried through beams through bulkheads, &c. Steel tubes.
 How are cables carried through decks Steel screwed plug.
 Are any cables run through coal bunkers ✓ or cargo spaces ✓ or spaces which may be used for carrying cargo, stores, or baggage ✓
 If so, how are they 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 ✓
 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 Yes.
 Are any switches, fuses, or joints of cables fitted in the pump room or companion No
 How are the lamps specially protected in places liable to the accumulation of vapour or gas None

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 600 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.

J. J. Reeves Electrical Engineers Date 15 Oct. 1915

COMPASSES.

Distance between dynamo or electric motors and standard compass 40 feet
 Distance between dynamo or electric motors and steering compass 35 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>0.25</u> Amperes	<u>4</u> feet from standard compass	<u>4</u> feet from steering compass
A cable carrying	<u>0.25</u> Amperes	<u>1</u> feet from standard compass	<u>4</u> feet from steering compass
A cable carrying	<u>✓</u> Amperes	<u>✓</u> feet from standard compass	<u>✓</u> feet from steering compass

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 Nil degrees on standard compass and ✓ degrees on course in the case of the steering compass.

Builder's Signature. Date 27 November 1915

GENERAL REMARKS. This electric light installation has been fitted in a most efficient manner and proved to be upon 24 hours trial in a good working condition, no heating or hitches whatever.

It is submitted that this vessel is eligible for THE BOARD Elec. light.

J. J. Reeves
J. W. D. 19/1/16

J. H. H. Lee
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. 21 JAN. 1916

Im. 9. 11. — Transfer.