

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of Antwerp Date of First Survey 19 Nov. Date of Last Survey 1 Decembr No. of Visits 3  
 No. in 5/8 on the ~~Iron~~ Steel COSTCAPPELLE Port belonging to Rotterdam  
 Reg. Book 79108 Built at Vlaardingen By whom N.V. Schap. V.d. Windt When built 1921  
 Owners Johan. S. Shah. The Merchant S. S. Co. Owners' Address Bombay  
 Yard No. \_\_\_\_\_ Electric Light Installation fitted by T. Goedeme When fitted 1<sup>o</sup> 24

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Engberg's Electric & Mechanical Works St Joseph Smit U.S.A.  
 Type V-G Diameter Cyl: 4 Speed 450 Stroke 6 Dynamo 7.5 KW 110 Volts  
 Capacity of Dynamo 68 Amperes at 110 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double  
 Position of Main Switch Board Engine room having switches to groups Yes of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Midschip 4 Chartroom navigation  
Lights 5

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 No branch 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 50 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 80 arranged in the following groups:—

A	<u>Midschip 20</u> lights each of <u>25</u> candle power requiring a total current of <u>5</u> Amperes
B	<u>Forecastle 8</u> lights each of <u>25</u> candle power requiring a total current of <u>2</u> Amperes
C	<u>Engine Room 11</u> lights each of <u>25</u> candle power requiring a total current of <u>3</u> Amperes
D	<u>Cargo lights 20</u> lights each of <u>25</u> candle power requiring a total current of <u>5</u> Amperes
E	<u>Chartroom 5</u> lights each of <u>25</u> candle power requiring a total current of <u>1.25</u> Amperes
	<u>1</u> Mast head lights with <u>2</u> lamps each of <u>32 carbon</u> candle power requiring a total current of <u>2</u> Amperes
	<u>1</u> Side light with <u>2</u> lamps each of <u>32 11</u> candle power requiring a total current of <u>2</u> Amperes
	<u>4</u> Cargo lights of <u>5 lamps 25</u> candle power, whether incandescent or arc lights <u>incandescent</u>

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

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

## DESCRIPTION OF CABLES.

Main cable carrying 30 Amperes, comprised of 7 wires, each 0.056 S.W.G. diameter, 0.01723 square inches total sectional area  
 Branch cables carrying 4.5 Amperes, comprised of 7 wires, each 0.104 S.W.G. diameter, 0.00849 square inches total sectional area  
 Branch cables carrying 6 Amperes, comprised of 1 wires, each 0.104 S.W.G. diameter, 0.00849 square inches total sectional area  
 Leads to lamps carrying 4 Amperes, comprised of 1 wires, each 0.104 S.W.G. diameter, 0.00849 square inches total sectional area  
 Cargo light cables carrying 5 Amperes, comprised of 7 wires, each 0.104 S.W.G. diameter, 0.00849 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Wire of 1000 Mgh: in Steel tubes Soldered & insulated with para & insulation tape protected by Steel box.

Joints in cables, how made, insulated, and protected Soldered & insulated with para & insulation tape & protected by a steel box

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 in Steel tubes



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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 *Steel tubes* ✓  
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *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 *'' ''* ✓  
 How are cables carried through beams *Steel tubes* ✓ through bulkheads, &c. *'' ''* ✓  
 How are cables carried through decks *'' ''* ✓  
 Are any cables run through coal bunkers *Yes* or cargo spaces *Yes* or spaces which may be used for carrying cargo, stores, or baggage *Yes* ✓  
 If so, how are they protected *With Steel Tubes* ✓  
 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 *permanently* How fixed *With plugs* ✓  
 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 *in 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 \_\_\_\_\_ 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.

*Ch Goedemé*

Electrical Engineers

Date *29/11/24*

**COMPASSES.**

Distance between dynamo or electric motors and standard compass *80 feet*  
 Distance between dynamo or electric motors and steering compass  
 The nearest cables to the compasses are as follows:—  
 A cable carrying *1* Amperes *8* feet from standard compass *6* 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 *Yes* ✓  
 The maximum deviation due to electric currents, etc., was found to be *none* degrees on *S. H. 2°* course in the case of the standard compass and *S. H. 2°* degrees on *S. H. 2°* course in the case of the steering compass.

*Stender*  
 Adjuster  
 Builder's Signature.

Date *3/12/24*

**GENERAL REMARKS.**

*The workmanship & materials are good. The installation has been fitted on board and when tried under full working condition was found satisfactory. The record of Electric Light may in my opinion be made in R. B. in the case of this vessel.*

*It is submitted that this vessel is eligible for Fee 1140 Frames.*

THE RECORD.

*By light*  
*20/12/24*

*John Thomson*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

2m.112b.—Transfer.



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