

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 10071

Port of Rotterdam Date of First Survey 12-5-19 Date of Last Survey 16-6-19 No. of Visits 4  
 No. in Reg. Book on the Iron or Steel 3/4; DUIVENDRECHT Port belonging to Rotterdam  
 Built at Dordrecht By whom Weyl Baanhoeck When built 1919  
 Owners M. H. Maats. Kustvaart Owners' Address Rotterdam  
 Yard No. 294 Electric Light Installation fitted by W. van Leeuwen Dordrecht When fitted 1919

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound steel Dynamo, direct coupled with steam engine  
 Capacity of Dynamo 36 Amperes at 110 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed in Engine room Whether single or double wire system is used double  
 Position of Main Switch Board in Engine room having switches to groups seven of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Galley Saloon with 4 switches, Cabin with 5 switches, fore castle with 2 switches, mess room sailors 3 switches.  
 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 98 arranged in the following groups:—  

A	6	lights each of	32	candle power requiring a total current of	2.18	Amperes
B	9	lights each of	32	candle power requiring a total current of	3.27	Amperes
C	7	lights each of	32	candle power requiring a total current of	2.55	Amperes
D	11	lights each of	32	candle power requiring a total current of	4.00	Amperes
E	5	lights each of	32	candle power requiring a total current of	4.00	Amperes
2	Mast head light with one lamp each of	32	candle power requiring a total current of	1.82	Amperes	
1	Side light with one lamp each of	32	candle power requiring a total current of	0.73	Amperes	
2	Side light with one lamp each of	32	candle power requiring a total current of	0.36	Amperes	
4 groups - 4	Cargo lights of 6 lamps	96	candle power, whether incandescent or arc lights	0.73	Amperes	

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

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

## DESCRIPTION OF CABLES.

Main cable carrying	36	Amperes, comprised of	7	wires, each	16	S.W.G. diameter, 0.024 square inches total sectional area
Branch cables carrying		Amperes, comprised of		wires, each		S.W.G. diameter, 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	22.6	Amperes, comprised of	one	wires, each	17	S.W.G. diameter, 0.00225 square inches total sectional area
Cargo light cables carrying	4	Amperes, comprised of	± 20	wires, each		S.W.G. diameter, 0.0018 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulation gummi, protected by lead in officers cabins; protected by iron pipes in other parts of the ship.  
 Joints in cables, how made, insulated, and protected soldered, insulated with gummi and chaffed in steel 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 in iron pipes



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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 lead and iron pipes

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

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 watertight through bulkheads, &c. "

How are cables carried through decks watertight

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 iron pipes

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 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 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass 60 feet

Distance between dynamo or electric motors and steering compass 60 feet

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>0.2</u>		<u>one</u>	

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.

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules and was found in a good working condition when tried, and merits in my opinion the Committee's approval.

It is submitted that this vessel is eligible for

THE RECORD.

ELEC. LIGHT.

FRI. 25 JUL. 1919

Committee's Minute

Builder's Signature. Date

Surveyor of Lloyd's Register of Shipping.



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