

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4603

Port of Haarlem Date of First Survey 14 Oct Date of Last Survey 2 April No. of Visits 4  
 No. in Reg. Book on the Iron or Steel Depute René Rorille Port belonging to Haarlem  
 Built at Naen By whom Chantiers Navals Bretons (CNB) When built 1920  
 Owners French Government (Transit Maritime) Owners' Address  
 Yard No. CNF Electric Light Installation fitted by Chantiers Navals Bretons When fitted 1920

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo 4,830 K. W  
Group dynamo driven by steam engine and constructed by Ateliers d'Automobile et d'Aviation à Paris  
 Capacity of Dynamo 42 Amperes at 115 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 4 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each 2 in Bridge each 1 switch  
2 Between deck  
1 in fore castle  
1 poop  
1 chartroom with 7 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 no 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 oxidizable and constructed to fuse at an excess of 2 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 no  
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases constructed of incombustible materials  
 Total number of lights provided for 98 arranged in the following groups:—  
 A Engine & Boiler space 22 lights each of 16 candle power requiring a total current of 8 Amperes  
 B Between deck Port side 6 lights each of 16 candle power requiring a total current of 3 Amperes  
 C Between deck Starboard 9 lights each of 16 candle power requiring a total current of 4.5 Amperes  
 D fore castle 11 lights each of 16 candle power requiring a total current of 5.5 Amperes  
 E Bridge 13 lights each of 16 candle power requiring a total current of 6.5 Amperes  
 F Bridge fore 9 lights each of 16 candle power requiring a total current of 3.5 Amperes  
 G Poop 2 lights each of 16 candle power requiring a total current of 2 Amperes  
 Mast head light with 1 lamp each of 32 candle power requiring a total current of 2.5 Amperes  
2 Side light with 1 lamp each of 1 of 50 candle power requiring a total current of 2.5 Amperes  
1 of 32  
No Cargo lights of < candle power, whether incandescent or arc lights <

If arc lights, what protection is provided against fire, sparks, &c. no

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

## DESCRIPTION OF CABLES.

Main cable carrying 32.3 Amperes, comprised of 19 wires, each 12/10 S.W.G. diameter, 2.15 square inches total sectional area  
 Branch cables carrying 4 to 11.8 Amperes, comprised of 7 wires, each 7/10 S.W.G. diameter, 8 square inches total sectional area  
 Branch cables carrying 10 Amperes, comprised of 4 wires, each 8/10 S.W.G. diameter, 6 square inches total sectional area  
 Leads to lamps carrying 2, 2.6 Amperes, comprised of 1 wires, each 12/10 S.W.G. diameter, 1.13 square inches total sectional area  
 Cargo light cables carrying no Amperes, comprised of < wires, each < S.W.G. diameter, < square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

on decks tubes Bergmann  
crew and Engine Boiler room lead coating  
officers under lathice  
 Joints in cables, how made, insulated, and protected in splice and splice box insulated and protected in the same manner of the cable  
 Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances no 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 no  
 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 fixed under beam by collars protected by lead coating



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 *Bergmann weldless steel tubes*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *lead coating*

What special protection has been provided for the cables near boiler casings *lead coating*

What special protection has been provided for the cables in engine room *do*

How are cables carried through beams *no* through bulkheads, &c. *yes*

How are cables carried through decks *in Bergmann weldless steel tubes*

Are any cables run through coal bunkers *No* or cargo spaces *No* or spaces which may be used for carrying cargo, stores, or baggage *no*

If so, how are they protected *L*

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 *L*

Where are the main switches and fuses for these lights fitted *L*

If in the spaces, how are they specially protected *L*

Are any switches or fuses fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *L* How fixed *L*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *L*

How are the returns from the lamps connected to the hull *L*

Are all the joints with the hull in accessible positions *L*

Is the installation supplied with a voltmeter *1*, and with an amperemeter *1*, fixed *main switches 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 *L*

Are any switches, fuses, or joints of cables fitted in the pump room or companion *L*

How are the lamps specially protected in places liable to the accumulation of vapour or gas *L*

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.

Electrical Engineers Date \_\_\_\_\_

COMPASSES.

Distance between dynamo or electric motors and standard compass *59'-0"*

Distance between dynamo or electric motors and steering compass *60'-9"*

The nearest cables to the compasses are as follows:—

Cable	Carrying	Amperes	feet from standard compass	feet from steering compass
A cable carrying	<i>1/2</i>	<i>31-0</i>	<i>7'-0"</i>	<i>7'-0"</i>
A cable carrying	<i>12</i>	<i>540</i>	<i>6'-0"</i>	<i>6'-0"</i>
A cable carrying	<i>L</i>	<i>L</i>	<i>L</i>	<i>L</i>

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 \_\_\_\_\_ 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 *23 December 1920* *L. Horn*

GENERAL REMARKS.

*The electric engine has been tried under working condition and found satisfactory.*

Fee — *279 £*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. APR. 19 1921



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.