

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 322

Port of *Havre* Date of First Survey *28th October 1912* Date of Last Survey *11th December 12* No. of Visits *10*
 No. inscribed on the ~~Iron or Steel~~ *S. Pr. "VILLE DALGER"* Port belonging to *Havre*
 Reg. Book *8* Built at *Havre* By whom *Soc. an. des Forges & Ch. de la Méd.* When built *1912*
 Owners *Cie Havraise Pen. de nav. à vap.* Owners' Address *✓*
 Yard No. *358* Electric Light Installation fitted by *Soc. an. des Forges & Ch. de la Méd.* When fitted *1912*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo H. Holmes & Co. of Newcastle - coupled with a vertical single cylinder steam engine. 95 lbs pressure, 250 revolutions.

Capacity of Dynamo *95* Amperes at *100* 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 *in the Engine Room* having switches to *4* groups of *15.3.* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *one auxiliary switch board in Bridge with 3 switches on it, and one in chart Room for mast head, sidelights & compasses.*

If cut outs 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 cessel is wired on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits *yes*

Are the cut outs of non-oxidizable metal *yes* and constructed to fuse at an excess of *100* per cent over the normal current

Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases *yes*

Total number of lights provided for *153* arranged in the following groups:—

A Engines & Boilers	25 lights each of	16	candle power requiring a total current of	12.5	Amperes
B Regulation	26 lights each of	16	candle power requiring a total current of	13	Amperes
C Cargo lights	5	25	— — — — —	4	Amperes
C Poop & Forecastle	21 lights each of	16	candle power requiring a total current of	10.5	Amperes
D Bridge	76 lights each of	16	candle power requiring a total current of	38	Amperes
E	✓ lights each of	✓	candle power requiring a total current of	—	Amperes
Detail 2 Mast head light with	1 lamps each of	25	candle power requiring a total current of	—	Amperes
B 2 Side light with	1 lamps each of	25	candle power requiring a total current of	—	Amperes
1 Poop	1	25			
26 Cargo lights of	16		candle power, whether incandescent or arc lights		
				Total	78 amperes.

If arc lights, what protection is provided against fire, sparks, &c. *none used.*

Where are the switches controlling the masthead and side lights placed *in chart Room*

DESCRIPTION OF CABLES.

Main cable carrying *78* Amperes, comprised of *37* wires, each *17* L.S.G. diameter, *.0910* square inches total sectional area
 Branch cables carrying *13* Amperes, comprised of *7* wires, each *17* L.S.G. diameter, *.0172* square inches total sectional area
 Branch cables carrying *—* Amperes, comprised of *—* wires, each *✓* L.S.G. diameter, *—* square inches total sectional area
 Leads to lamps carrying *5* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.00181* square inches total sectional area
 Cargo light cables carrying *13* Amperes, comprised of *7* wires, each *19* L.S.G. diameter, *.0088* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The cables are insulated with rubber and separators and layers as required by Rules. They are protected either by wood casings or by iron tubes according to the places and as necessary.

Joints in cables, how made, insulated, and protected *joints made in watertight junction boxes and properly insulated.*

Are all the joints of cables thoroughly soldered, resin only having been used as a flux *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 cargo spaces (shelter tween decks) in iron tubes and elsewhere in wood casings with screwed on covers. Watertight manholes in decks.*

No. of Side Stringer
Size of Face, Angles, &
BRACKET PLATES 1
Web Fra
BULKHEAD
W.T.BUL
at frame
6.38.6
134.16
COLLISI
PARTIT
LONGIT
and
Are the o
Are the S
ST
FLAT PL
(If Bar Ke
GARBOARD
State acti
thickness
way of Do
Bottom
2d H Sheer
upper H Sheer
L
Shelter H Sheer
M
N
Bridge H Sheer
L
Shelter H Sheer
M
N
Upper D
Stringer I
Seed
Shelter H Sheer
M
N
FRAMES ex
REVERSED
LOWER MAST
Bowsprit
Topmasts, Y
Rigging, Mat
Sails.

Inches in Ship. Inches in Ship.
and spacing 9
rdth. & thickness 18
B. Space, No. & spacing 5
th. & thickness
After Bod

ATION 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. *wood casings or iron tubes*
What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *wood casings or iron tubes as necessary*
What special protection has been provided for the cables near boiler casings *wood casings*
What special protection has been provided for the cables in engine room *no*
How are cables carried through beams *passing below beams* through bulkheads, &c. *watertight passages*
How are cables carried through decks *watertight tubes*
Are any cables run through coal bunkers *no* or cargo spaces *in shelter spaces which may be used for carrying cargo, stores, or baggage* *no*
If so, how are they protected *Protected by iron 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 cut outs for these lights fitted *✓*
If in the spaces, how are they specially protected *✓*
Are any switches or cut outs 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 *✓*
The installation is *Conveniently* supplied with a voltmeter and *with* an amperemeter, fixed *in the engine room*

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas
Are any switches, cut outs, 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 *98* per cent. that of pure copper.
Insulation of cables is guaranteed to have a resistance of not less than *600* megohms per statute mile after 24 hours' immersion in seawater.

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.

Le Secrétaire Général
Edm. Lavoisier

Electrical Engineers

Date *28th December 1912*

COMPASSES.

Distance between dynamo or electric motors and standard compass *about 100 feet*
Distance between dynamo or electric motors and steering compass *5-5-*
The nearest cables to the compasses are as follows:—
A cable carrying *5* Amperes *10* feet from standard compass *in the* 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 *neglected* degrees or as very small. course in the case of standard compass and *not appreciable* degrees on *not appreciable* course in the case of the steering compass.

Le Secrétaire Général
Edm. Lavoisier

Builder's Signature.

Date *28th December 1912*

GENERAL REMARKS. *This installation has been fitted as per Rules and found good*

The Results on trials Satisfactory

It is submitted that this vessel is eligible for THE RECORD Elec. light. *JWD 1/1/13.*

Mr. Boyer

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

Committee's Minute

FRI. JAN. 10. 1913

TUE. NOV. 25. 1913

FRI. DEC. 19. 1913

