

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4832

Port of Harre Date of First Survey 6 June Date of Last Survey 23 September No. of Visits 5  
 No. in 1 on the Iron Steel 1/2 Capitaine Henri Rallier Port belonging to Harre  
 Reg. Book Built at Caen By whom Chantiers Navals Francais When built 1922  
 Owners French Government Owners' Address Paris  
 Yard No. 13 Electric Light Installation fitted by Chantiers Navals Francais When fitted 1922

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo 5 KW  
 Driven by steam engine 1 cylinder  
 Capacity of Dynamo 47 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 5 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Engine room 3 Crew 4 Officers 4  
Officers 3 chartroom 6

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 1 1/2 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 yes

Total number of lights provided for 112 arranged in the following groups:—

A	Engine room	30 lights each of	16	candle power requiring a total current of	12	Amperes
B	Officers	45 lights each of	16	candle power requiring a total current of	15	Amperes
C	Crew	30 lights each of	16	candle power requiring a total current of	12	Amperes
D	Chartroom	7 lights each of	32	candle power requiring a total current of	11.2	Amperes
E	1st St	lights each of		candle power requiring a total current of	13.6	Amperes
	Mast head light with	2 lamps each of	32	candle power requiring a total current of	0.8	Amperes
	Side light with	2 lamps each of	32 & 50	candle power requiring a total current of	0.8 & 1.35	Amperes
	Cargo lights of reflectors	4 lamps	32	candle power, whether incandescent or arc lights	incandescent	

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

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

## DESCRIPTION OF CABLES.

Main cable carrying 48 Amperes, comprised of 17 wires, each 14/10 S.W.G. diameter, 29.9 square inches total sectional area  
 Branch cables carrying 15 Amperes, comprised of 7 wires, each 12/10 S.W.G. diameter, 7.92 square inches total sectional area  
 Branch cables carrying 1.33 Amperes, comprised of 1 wires, each 12/10 S.W.G. diameter, 1.13 square inches total sectional area  
 Leads to lamps carrying 0.8 Amperes, comprised of 1 wires, each 12/10 S.W.G. diameter, 1.13 square inches total sectional area  
 Cargo light cables carrying 0.4 Amperes, comprised of 1 wires, each 12/10 S.W.G. diameter, 1.13 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

2 coat vulcanized rubber - 2 coat natural rubber - lead or armoured steel

Joints in cables, how made, insulated, and protected Boxes insulated

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 beams



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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 — lead or armoured steel

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat armoured steel and far

What special protection has been provided for the cables near boiler casings Lead or armoured

What special protection has been provided for the cables in engine room — 2° —

How are cables carried through beams none through bulkheads, &c. tees ✓

How are cables carried through decks Tubes ✓

Are any cables run through coal bunkers none or cargo spaces none or spaces which may be used for carrying cargo, stores, or baggage none

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 none

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 none

Cargo light cables, whether portable or permanently fixed portable How fixed on deck

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 switches bar

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.

*[Signature]*

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motor and standard compass 27 m.

Distance between dynamo or electric motors and steering compass 32 m.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>0.4</u>	Amperes	<u>for lighting of compass</u>	<u>22</u>	feet from standard compass	<u>for lighting of compass</u>	<u>22</u>	feet from steering compass
A cable carrying	<u>—</u>	Amperes	<u>—</u>	<u>—</u>	feet from standard compass	<u>—</u>	<u>—</u>	feet from steering compass
A cable carrying	<u>—</u>	Amperes	<u>—</u>	<u>—</u>	feet from standard compass	<u>—</u>	<u>—</u>	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power with

The maximum deviation due to electric currents, etc., was found to be none degrees on — course in the case of the standard compass and — degrees on — course in the case of the steering compass. —

*[Signature]*

Builder's Signature.

Date

GENERAL REMARKS.

This electric installation has been verified it has been tried and found conform and in satisfactory condition

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

See 290<sup>d</sup>

pd 27/11/22  
Committee's Minute

*[Signature]*  
7/10/22

*[Signature]*  
Surveyor to Lloyd's Register of Shipping.

TUE. 24 OCT. 1922

FRI. 23 FEB. 1923



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2.m.11.20.—Transfer.