

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

W482-0724  
SAT. 17 SEP. 1921

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No. 15,142

Leith

Date of First Survey 19-11-20

Date of Last Survey 13-9-21

No. of Visits 31

on the Iron or Steel SS "KINGHORN"

Port belonging to Bergen.

Built at Kinghorn.

By whom Kinghorn S.B. Co.

When built

Electric Light Installation fitted by James Scott Ltd.

Owners' Address

When fitted 1921.

ON OF DYNAMO, ENGINE, ETC.

1 cylinder steam engine direct coupled to Multipolar dynamo.

Dynamo 120 Amperes at 110

Volts, whether continuous or alternating current Continuous

dynamo fixed Engine Room bottom platform.

Whether single or double wire system is used Double

Main Switch Board

auxiliary switch boards and numbers of switches on each Chart Room 5 switches, E.R. Top Port 3 switches, Star 2 switches.

fitted on main switch board to the cables of main circuit yes. and on each auxiliary switch board to the cables of auxiliary

wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes

of non-oxidizable metal yes and constructed to fuse at an excess of 25 per cent over the normal current

fitted in easily accessible positions yes Are the fuses of standard dimensions yes. If wire fuses are used

and fuses constructed of incombustible materials and fitted on incombustible bases yes.

of lights provided for 160 arranged in the following groups:-

36 lights each of Carbon 2-40 W. 12-30 W.	16	candle power requiring a total current of	20.	Amperes
6-21 C lights each of CARBON. 1-300 W	16	candle power requiring a total current of	25.	Amperes
32 lights each of 31 Carbon.	16	candle power requiring a total current of	15.	Amperes
26 lights each of Carbon	16	candle power requiring a total current of	12.	Amperes
5 lights each of		candle power requiring a total current of	10.	Amperes
head light with 1 lamps each of 32		candle power requiring a total current of	2	Amperes
side light with 1 lamps each of 32		candle power requiring a total current of	2	Amperes
Cargo lights of 16		candle power, whether incandescent or are lights Incandescent		

at protection is provided against fire, sparks, &c. ✓

switches controlling the masthead and side lights placed On tell tale in wheel house.

OF CABLES.

86 Amperes, comprised of 19 wires, each 14	S.W.G. diameter, .10	square inches total sectional area
15 Amperes, comprised of 4 wires, each 18	S.W.G. diameter, .01	square inches total sectional area
25 Amperes, comprised of 4 wires, each 18	S.W.G. diameter, .01	square inches total sectional area
3 Amperes, comprised of 3 wires, each 22	S.W.G. diameter, .0015	square inches total sectional area
20 Amperes, comprised of 4 wires, each 18	S.W.G. diameter, .01	square inches total sectional area
10 Amperes, comprised of 4 wires, each 18	S.W.G. diameter, .01	square inches total sectional area

INSULATION, PROTECTION, ETC.

Vulcanised Indian rubber, braided and coated, and lead

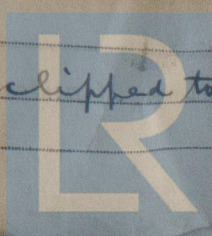
made, insulated, and protected Made in Cast Iron watertight junction box. coated with 4 layers of rubber and 2 of black tape.

cables thoroughly soldered, and the flux used not containing acids or other corrosive substances yes Are all joints in accessible

being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage No

in or branches from the cable leading from dynamo to main switch board No.

ed through the ship, and how protected Armored and braided cable clipped to through tween decks.



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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 covered, and

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Armored cable.

What special protection has been provided for the cables near boiler casings Carried in W. I. pipe

What special protection has been provided for the cables in engine room Armored cable.

How are cables carried through beams Armored cable. through bulkheads, &c. with bulkhead glands

How are cables carried through decks in deck tubes 15" high.

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 Armored cable.

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 Portable. How fixed In watertight box near hat

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 at Dynamo

**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.

John James Scott & Co. and John Edgar Manager Electrical Engineers

Date 15 September

**COMPASSES.**

Distance between dynamo or electric motors and standard compass \_\_\_\_\_

Distance between dynamo or electric motors and steering compass \_\_\_\_\_

The nearest cables to the compasses are as follows:—

A cable carrying _____ Amperes _____	feet from standard compass _____	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 \_\_\_\_\_

The maximum deviation due to electric currents, etc., was found to be \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of standard compass and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

Builder's Signature. Date \_\_\_\_\_

**GENERAL REMARKS.** This installation has been well fitted as described above, and tried under full power with satisfactory result

Survey Fee £ 12-0-0.

Paid 15/10/21

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

Committee's Minute FRI. 23 SEP. 1921

Dear Sir  
the Steam  
in course  
completed  
and the b  
no defini  
finally c  
strike the  
retarded.

The Secret  
LONDON