

W482-0224

SAT. 17 SEP. 1921

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION.

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.
 Withania Steamship Co. Owners' Address When built
 Electric Light Installation fitted by James Scott Ltd. When fitted 1921.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A 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 " " having switches to groups A. B. C. D. E. F. of lights, &c., as below
 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
 and at each position where a cable is branched or reduced in size yes and to each lamp circuit yes
 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 instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit yes
 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 16 candle power requiring a total current of 20 Amperes
 2-40 W. 12-30 W. MAZDA
 6-21 C. lights each of CARBON. 1-300 1/2 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 16 candle power requiring a total current of 10 Amperes
 Mast 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 arc lights Incandescent

Protection is provided against fire, sparks, &c. ✓

switches controlling the masthead and side lights placed On tall pole in wheel house.

DESCRIPTION OF CABLES.

Carrying 86 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .10 square inches total sectional area
Carrying 15 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .01 square inches total sectional area
Carrying 25 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .01 square inches total sectional area
Carrying 3 Amperes, comprised of 3 wires, each 22 S.W.G. diameter, .0015 square inches total sectional area
Carrying 20 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .01 square inches total sectional area
Carrying 10 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .01 square inches total sectional area

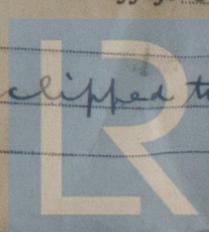
DESCRIPTION OF INSULATION, PROTECTION, ETC.

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.

Protected 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 & John Edgar Managers Electrical Engineers

Date 15th 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 results

Survey Fee £ 12-0-0.

Paid 15/10/21 llh

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

Committee's Minute FRI. 23 SEP. 1921

Im. 9. 12. — Transfer.

WITH 506.



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The Secret
LONDON

