

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 85865

S. Karin formerly of Maggie O'Regan

Port of Londou Date of First Survey 11th Sep 1922 Date of Last Survey 14 Sept 1922 No. of Visits 4

No. in Reg. Book 66305 on the Iron or Steel SS "Karin" Port belonging to Londou

Built at Stekroover By whom NV Schips "De Maas" When built 1918

Owners Messrs Janssen & Tiedel Owners' Address 286. Salisbury House E.C.2

Yard No. 1 Electric Light Installation fitted by For W. H. ALLEN, SONS & Co., Ltd. When fitted Sept 12-22

79616 Wupp

[Handwritten signature]

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Single crank open type, direct coupled to compound wound dynamo.
Multipolar type

Capacity of Dynamo 41 Amperes at 100 Volts, whether continuous or alternating current C.C.

Where is Dynamo fixed Starting Platform in engine room Angle or double wire system is used Single

Position of Main Switch Board in engine room having switches to groups 5 Circuits of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Off accommodation, no switches other than on switch board. Machinery spaces, 3 switches. Navigation one switch controlling each light and separate fuses for each.

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 15 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 Yes

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 82 arranged in the following groups:-

A	<u>Fore cable</u> 6 lights each of <u>30</u> candle power requiring a total current of <u>2</u> Amperes
B	<u>Midship & haug</u> lights each of <u>30</u> candle power requiring a total current of <u>16.5</u> Amperes
C	<u>Off accom</u> lights each of <u>30</u> candle power requiring a total current of <u>6.30</u> Amperes
D	<u>Machinery spaces</u> lights each of <u>40</u> candle power requiring a total current of <u>7.60</u> Amperes
E	<u>Cargo Circuit</u> lights each of <u>16</u> candle power requiring a total current of <u>4</u> Amperes
2	Mast head lights with 2 lamps each of <u>32 S.F.</u> candle power requiring a total current of <u>2</u> Amperes
2	Side light with 2 lamps each of <u>"</u> candle power requiring a total current of <u>2</u> Amperes
4	Cargo lights of <u>24</u> lights of <u>16</u> candle power, whether incandescent or arc lights <u>Incandescent.</u>

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

Where are the switches controlling the masthead and side lights placed in chart room.

DESCRIPTION OF CABLES.

Main cable carrying 48 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .060 square inches total sectional area

Branch cables carrying 11.5 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area

Branch cables carrying 6.5 Amperes, comprised of 3 wires, each 30 S.W.G. diameter, .003 square inches total sectional area

Leads to lamps carrying 1 Amperes, comprised of 3 wires, each 30 S.W.G. diameter, " square inches total sectional area

Cargo light cables carrying 3 Amperes, comprised of 40 wires, each 36 S.W.G. diameter, .0018 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wiring in living accommodation is S. I. P. enclosed in lead casing and secured to construction by brass clips. cables passing through holds is encased in steel tube. wire in machinery spaces is in steel armor. all wires tables = 600

Joints in cables, how made, insulated, and protected None. no joints whatsoever employed on the installation.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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 gal. steel tube.

Generator

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *not. shield cargo is in hold*

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *where exposed wires and cables are in steel tubing.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *isolated by distance pieces*

What special protection has been provided for the cables near boiler casings *not affected*

What special protection has been provided for the cables in engine room *steel armour wire*

How are cables carried through beams *fibre bushes.* through bulkheads, &c.

How are cables carried through decks *in steel conduits*

Are any cables run through coal bunkers *Yes* or cargo spaces *Yes* or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected *Steel 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 fuses for these lights fitted

If in the spaces, how are they specially protected

Are any switches or fuses fitted in bunkers *no.*

Cargo light cables, whether portable or permanently fixed *4* How fixed *Insulated dynamo line*

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 *main 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

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.

For **W. H. ALLEN, SONS & Co., Ltd.**, *J. Hart* Manager Electrical Engineers Date *Sept. 12-22*

COMPASSES.

Distance between dynamo or electric motors and standard compass *approx 80 feet*

Distance between dynamo or electric motors and steering compass *" 70 "*

The nearest cables to the compasses are as follows:—

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 the standard compass and _____ degrees on _____ course in the case of the steering compass.

W. H. Allen Sons & Co. Ltd. Builder's Signature. Date *Sept. 12-22*

GENERAL REMARKS. *The generating machinery is a second hand set which has been opened out & found satisfactory. The installation has been carried out under special survey & on completion was tried under full load & found efficient & the vessel is eligible in my opinion to have the record "Electric Light" Fee £5-0-0. It is submitted that this vessel is eligible for THE RECORD. Elec. light.*

Fee applied for *19. 9. 22* *W.D.* Surveyor to Lloyd's Register of Shipping. *2/9/22*

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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