

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 41575.

Port of Glasgow. Date of First Survey 9-10 Date of Last Survey 9-12-21 No. of Visits 19.

No. in Reg. Book 370228 on the Steel M.V. DOMALA" Port belonging to Glasgow.

Built at Whiteinch By whom Messrs Barclay Curle & Co When built 1921.

Owners The Brit. Ind. St. Nav. Co. Ltd. Owners' Address

Yard No. 579. Electric Light Installation fitted by Messrs Siemens Ltd. When fitted 1921.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

TOTAL KW - 490.

9.215 KW. Compound wound. Main Generators by W.N. Allen.
direct coupled to 2 Diesel Engines by N.B. Diesel Co.

Capacity of Dynamo 2-980, 1-190, 1-18 Amperes at 220 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine Room platform Whether single or double wire system is used Double.

Position of Main Switch Board Engine Room platform having switches to groups As per heat sheet of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Alongside Main Switchboard + in
emergency engine house.

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 100 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 685+3 Plugs arranged in the following groups:—

A	lights each of	candle power requiring a total current of	Amperes
B	lights each of	candle power requiring a total current of	Amperes
C	lights each of	candle power requiring a total current of	Amperes
D	lights each of	candle power requiring a total current of	Amperes
E	lights each of	candle power requiring a total current of	Amperes
2	Mast head lights with 1 lamp each of 32	candle power requiring a total current of .58	Amperes
2	Side lights with 1 lamp each of 32	candle power requiring a total current of .58	Amperes
48 in bays of 3 to 25	Cargo lights of 30 watt or 25 to 1000 "	candle power, whether incandescent or arc lights Incandescent	

If arc lights, what protection is provided against fire, sparks, &c. All other arc lamps fitted.

Where are the switches controlling the masthead and side lights placed In wheel house. (Navigation & Indicator)

DESCRIPTION OF CABLES.

Main cable carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Leads to lamps carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Cargo light cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All cables are insulated with pure rubber. Vulcanised rubber + vulcanised tape protected with lead covers. Take armour where necessary, + braided.

Joints in cables, how made, insulated, and protected No joints and installations with

all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances ✓ 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 ✓

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 Clipped to under side of decks, on trays beams.

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 & armoured. in Galvanised iron tubing.

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

Lead covered & armoured

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

Lead

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

Lead covered & armoured.

How are cables carried through beams

*Bushes or holes**through bulkheads, &c. Wall light glands.*

How are cables carried through decks

*through 18" Deck tubes.*Are any cables run through coal bunkers *no* or cargo spaces *no* or spaces which may be used for carrying cargo, stores, or baggage *yes*

If so, how are they protected

by Beans & lead covering

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

wire cloth with insulators

Where are the main switches and fuses for these lights fitted

wire cloth with insulators

If in the spaces, how are they specially protected

wire cloth with insulators

Are any switches or fuses fitted in bunkers

no

Cargo light cables, whether portable or permanently fixed

*portable.**How fixed 10/1. Juncular box.*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel

wire cloth with insulators

How are the returns from the lamps connected to the hull

wire cloth with insulators

Are all the joints with the hull in accessible positions

*wire cloth with insulators*Is the installation supplied with a voltmeter *yes. 3* and with an ammeter *yes. 5*, fixed on switchboard

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 *9,600* 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 SIEMENS BROTHERS & CO., LIMITED,
MARINE DEPARTMENT,

Electrical Engineers

Date

5/1/22

COMPASSES.

Distance between dynamo or electric motors and standard compass

150 feet.

Distance between dynamo or electric motors and steering compass

140 feet.

The nearest cables to the compasses are as follows:—

A cable carrying *45°* Amperes *15'* feet from standard compass *12* feet from steering compassA cable carrying *-3* Amperes *in* feet from standard compass *in* feet from steering compassA 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 *nil* degrees on *any* course in the case of thestandard compass and *nil* degrees on *any* course in the case of the steering compass.Builder's Signature. Date *9th January 1922*

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under full working conditions and found satisfactory. It is submitted that this vessel is eligible for THE RECORD. Elec. Light.

F.R.S. £43.16.0

age 15/12/21. L.Y.
19/1/22.

J. S. Rankin.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 JAN 1922

Elec. Light.