

REPORT ON ELECTRIC LIGHTING INSTALLATION. No 42031.

Port of GLASGOW. Date of First Survey 19.5.22 Date of Last Survey 20.6.22 No. of Visits 3.
 No. in on the Iron or Steel S.S. "BAYBANKIMO" Port belonging to LONDON.
 Reg. Book 36596. Built at ARDROSSAN. By whom THE ARDROSSAN D.D. & S.B. CO. LTD When built 1922.
 Owners THE HUDSON BAY CO Owners' Address
 Yard No. 518. Electric Light Installation fitted by MESRS TELFORD GRIER & MACKAY LTD When fitted 1922.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

-TOTAL K.W. = 10.-

Open type single cylinder double acting engine 6" cylinder by 5" inch stroke
semi enclosed compound wound dynamo multipolar.

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

Where is Dynamo fixed on starting platform Whether single or double wire system is used double

Position of Main Switch Board Beside dynamo having switches to groups of 5 circuits of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each no auxiliary switchboards.

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 none 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 50 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

Total number of lights provided for 111 arranged in the following groups:—

A Navigation	5 lights each of	32	candle power requiring a total current of	5.00	Amperes
B Midship Acc etc	34 lights each of	20 watts	candle power requiring a total current of	6.00	Amperes
C Crew Engine Rm etc	47 lights each of	20 watts	candle power requiring a total current of	9.40	Amperes
D Cargo	25 lights each of	16	candle power requiring a total current of	12.00	Amperes
E Wireless	lights each of		candle power requiring a total current of	15.00	Amperes
2 Mast head light with	1 lamp each of	32	candle power requiring a total current of	included	Amperes
2 Side light with	1 lamp each of	32	candle power requiring a total current of	"	Amperes
3 Cargo lights of		96	candle power, whether incandescent or arc lights	incandescent	

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

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

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 19 wires, each .083 S.W.G. diameter, 0.1000 square inches total sectional area
 Branch cables carrying 5 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, 0.0070 square inches total sectional area
 Branch cables carrying 6 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, 0.0070 square inches total sectional area
 Leads to lamps carrying 2 Amperes, comprised of 3 wires, each .036 S.W.G. diameter, 0.0030 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 3 wires, each .036 S.W.G. diameter, 0.0030 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires and cables are V.I.R. insulated and lead covered or V.I.R. insulated run in galvanized steel tubes.

Joints in cables, how made, insulated, and protected no joints

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances none 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 Cables are led through holds in galvanized steel tubes



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 W624-0067
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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 or steel tubing*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Lead covered cable in tubing*

What special protection has been provided for the cables near boiler casings *Lead covered cable in tubing*

What special protection has been provided for the cables in engine room *Lead covered cable in tubing*

How are cables carried through beams *In tubing* through bulkheads, &c. *watertight glands*

How are cables carried through decks *watertight deck tubes*

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 *By galvanized steel tubing*

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 *Portable* How fixed *—*

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 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 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.

Telford Grier & Machay *hwa*

Electrical Engineers

Date *26/6/22*

COMPASSES.

Distance between dynamo or electric motors and standard compass *90 ft.*

Distance between dynamo or electric motors and steering compass *82 ft.*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	Distance from standard compass	Distance from steering compass
<i>.025</i>	<i>fitted inside</i>	<i>8 ft.</i>	<i>feet from steering compass</i>
<i>.025</i>	<i>8 ft.</i>	<i>fitted inside</i>	<i>feet from steering compass</i>
<i>5</i>	<i>18 ft.</i>	<i>10 ft.</i>	<i>feet from steering compass</i>

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 the standard compass and *nil* degrees on *any* course in the case of the steering compass.

FOR AND ON BEHALF OF THE ANDROSSAN DRY DOCK & SHIPBUILDING COY. LTD.

J. Cairns *Manager*

Builder's Signature.

Date *27/7/22*

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.

FEES £10.0.0
EXP. 1.0.0

ap. 4.7.22.

P. 27/7/22

J. S. Rankin
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 25 JUL 1922

Glec. Light.



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

24/7/22

2m.11.10—Transfer.