

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 17841.

Port of Glenoch. Date of First Survey 18/4/21 Date of Last Survey 17/6/21 No. of Visits 8
 No. in Reg. Book on the Iron or Steel S.S. "GARRYOWEN" II Port belonging to Leirick
 Built at Glenoch. By whom George Brown Ltd. When built 1921.
 Owners J. Bannatyne & Sons Ltd. Owners' Address _____
 Yard No. 134. Electric Light Installation fitted by Henry Pinsons Ltd. Manchester fitted 1921.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

70 K.W. Generator

70 K.W. steam dynamo. Engine, High speed vertical enclosed compound, condensing or to atmosphere. Fixed lubrication, 7" & 13 1/2" x 7". Dynamo, Compound wound, enclosed ventilated type 525/R.

Capacity of Dynamo 304 Amperes at 230 Volts, whether continuous or alternating current Continuous

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

Position of Main Switch Board Pump Room having switches to groups _____ of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each See 7 K.W. Report Sheet.

① For Lighting. See 7 K.W. set details - changeover switch allows either set to be used.

② " Power. Control panel in control cabin for small motors. For other motors the starters on Main switchboard.

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 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 yes.

Total number of lights provided for _____ 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
	Mast head light with _____ lamps each of _____	candle power requiring a total current of _____	Amperes
	Side light with _____ lamps each of _____	candle power requiring a total current of _____	Amperes
	Cargo lights of _____	candle power, whether incandescent or arc lights	

See 7 K.W. Schedule

If arc lights, what protection is provided against fire, sparks, &c. _____

Where are the switches controlling the masthead and side lights placed _____

DESCRIPTION OF CABLES. Power 70 K.W. set.

Main cable carrying <u>304</u> Amperes, comprised of <u>61</u> wires, each <u>.103</u> S.W.G. diameter, <u>.5</u> square inches total sectional area
Sub Swb ^d Feeder cables carrying <u>170</u> Amperes, comprised of <u>37</u> wires, each <u>.083</u> S.W.G. diameter, <u>.2</u> square inches total sectional area
Deck cables carrying <u>200</u> Amperes, comprised of <u>37</u> wires, each <u>.093</u> S.W.G. diameter, <u>.25</u> square inches total sectional area
Cabin leads to lamps carrying <u>60</u> Amperes, comprised of <u>19</u> wires, each <u>.052</u> S.W.G. diameter, <u>.04</u> 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.

Feeder cables, V.I.R. 2,500 megohm grade, Assoc. Lead covered & armoured.

Branch wiring to motors V.I.R. 2,500 megohm Assoc in heavy gauge screwed galvanized conduit.

Joints in cables, how made, insulated, and protected None

Are 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 Either armoured cable or in conduit as above.



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.

All cable either lead covered & armoured or in screwed conduit

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat } All cable spaced from
What special protection has been provided for the cables near boiler casings } partition to which fixed
What special protection has been provided for the cables in engine room

How are cables carried through beams In tubing. through bulkheads, &c. Through watertight Glands.

How are cables carried through decks Through watertight glands.

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

If so, how are they protected By iron trough as well as being armoured.

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 w/f. Box.

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 2,500. 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 Henry Simpson Ltd.
C. P. Cunningham

Electrical Engineers

Date 21. 6. 21.

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

Builder's Signature. Date

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under working conditions & found satisfactory.

J. P. Rankin.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

See attached Report



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN