

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 17841

Port of Greenock Date of First Survey 15/4/21 Date of Last Survey 19/6/21 No. of Visits 8  
 No. in Reg. Book on the Iron or Steel S.S. GARRYOWEN II Port belonging to Limerick  
 Built at Greenock By whom George Brown & Co When built 1921  
 Owners J. Bannalyn & Sons Ltd. Owners' Address Henry Simons St. Manchester  
 Yard No. 134 Electric Light Installation fitted by Henry Simons St. Manchester when fitted 1921

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Y. K. W. Generalor  
Y. K. W. Steam Dynamo Enclosed vertical highspeed single cylinder engine splash lubrication  
5½" diam x 4" stroke Dynamo enclosed ventilated type compound wound 625/R

Capacity of Dynamo 30 Amperes at 230 Volts, whether continuous or alternating current continuous

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

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

Positions of auxiliary switch boards and numbers of switches on each  
Lighting Distribution Boards { Engine House 11. Switches.  
Pump House 7 "  
Weigh House 6 "

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 100 arranged in the following groups:—

A Engine Room	B <sup>d</sup> 42 lights each of 16 C.P.C or 32/50 M.F.	candle power requiring a total current of	Amperes
B Pump Room	lights each of " "	candle power requiring a total current of	Amperes
C Weigh House	lights each of " "	candle power requiring a total current of	Amperes
D Cabin	lights each of " "	candle power requiring a total current of	Amperes
E Spare	lights each of " "	candle power requiring a total current of	Amperes
2 Mast head lights	with 2 lamps each of 32	candle power requiring a total current of	1. Amperes
2 Side light with Stern	2 lamps each of 32	candle power requiring a total current of	1. Amperes
2 fixed Cargo lights	of 130	candle power, whether incandescent or arc lights	Incandescent.

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

Where are the switches controlling the masthead and side lights placed Wheel House

## DESCRIPTION OF CABLES.

Main cable carrying 30 Amperes, comprised of 7 wires, each .052 S.W.G. diameter, .0145 square inches total sectional area  
 Branch cables carrying Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 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 2 Amperes, comprised of 3 wires, each .029 S.W.G. diameter, .002 square inches total sectional area  
 Cargo light cables carrying 2½ Amperes, comprised of 7 wires, each .036 S.W.G. diameter, .007 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Joints in cables, how made, insulated, and protected

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

How are the cables led through the ship, and how protected



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture

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

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

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

How are cables carried through beams

through bulkheads, &c.

How are cables carried through decks

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

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage

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 Both Types.

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 and with an amperemeter, fixed

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 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.

In Henry Sang, Ltd.  
C. L. Kinnmonth

Electrical Engineers

Date 21. 6. 21.

COMPASSES.

Distance between dynamo or electric motors and standard compass

70 ft.

Distance between dynamo or electric motors and steering compass

70 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 10 Amperes 5 feet from standard compass 5 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 yes

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.

Geo. Brown & Co.

Builder's Signature.

Date 21. 6. 21

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. Bell

TOTAL FEE: £30.4.0.

q/c 29-6-21.

8/7/21

J. S. Rankin.

Surveyor to Lloyd's Register of Shipping.

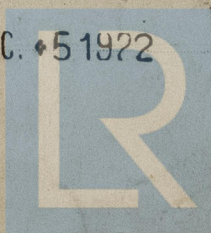
Committee's Minute

GLASGOW

5-JUL 1921

Elec Light

TUE DEC 5 1922



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