

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 27914

Port of Hull. Date of First Survey Aug 25<sup>th</sup> Date of Last Survey Sep 9/14 No. of Visits 6  
 No. in on the Iron or Steel SKK "RECEPT" Port belonging to Grimsby  
 Reg. Book Sup. 1. Built at Beverley By whom Booth, Melton, Samuel When built 1914  
 Owners G. F. Selgirth Owners' Address \_\_\_\_\_  
 Yard No. \_\_\_\_\_ Electric Light Installation fitted by Humber Electrical Eng. Co. When fitted 1914

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Robey open type engine.  
Dynamo Union Electric Co.  
 Capacity of Dynamo 30 Amperes at 100 Volts, whether continuous or alternating current D.C.  
 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 3. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Distribution boards fitted  
but no switches in following positions: 1-3 way to Forecastle  
1-10 way to Wheel house, 1-3 way to E. Room, 1-3 way to Cabin aft.  
 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 25. 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 45. arranged in the following groups:—  
 A 9. lights each of 16. candle power requiring a total current of 5.4 Amperes  
 B 10. lights each of 16. candle power requiring a total current of 6 Amperes  
 C 20. lights each of 16. candle power requiring a total current of 12 Amperes  
 D 6. lights each of 25. candle power requiring a total current of 6 Amperes  
 E \_\_\_\_\_ lights each of \_\_\_\_\_ candle power requiring a total current of \_\_\_\_\_ Amperes  
3. Mast head light with 1 lamps each of 32. candle power requiring a total current of 3.5 Amperes  
2. Side light with 1 lamps each of 32. candle power requiring a total current of 2.4 Amperes  
1 Cargo lights of 6 lamps 25. candle power, whether incandescent or arc lights 6

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 16. S.W.G. diameter, .0224 square inches total sectional area  
 Branch cables carrying 5.5. Amperes, comprised of 1. wires, each 18. S.W.G. diameter, .00181 square inches total sectional area  
 Branch cables carrying 11. Amperes, comprised of 3. wires, each 20. S.W.G. diameter, .00299 square inches total sectional area  
 Leads to lamps carrying 5. Amperes, comprised of 1. wires, each 18. S.W.G. diameter, .00181 square inches total sectional area  
 Cargo light cables carrying 5. Amperes, comprised of 1. wires, each 18. S.W.G. diameter, .00181 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead covered wire in Cabin & Chart room.  
Lead covered varnoured cable in E. Room, Stowhold, Cargo space etc.

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 ✓ 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 Lead covered varnoured clipped up  
direct to decks.

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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 & Armoured.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Not near heat.

What special protection has been provided for the cables near boiler casings Lead & Armoured.

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

How are cables carried through beams Holes drilled. through bulkheads, &c. Brass WT. Leads.

How are cables carried through decks Piping.

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 Lead & 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 ✓ How fixed Plug at Forecastle end

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 M.S. 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.

THE HUMBER ELECTRICAL ENGINEERING CO. PROPRIETORS

Electrical Engineers Date

COMPASSES.

Distance between dynamo or electric motors and Standard compass 30ft

Distance between dynamo or electric motors and steering compass 30ft

The nearest cables to the compasses are as follows:—

A cable carrying <u>3</u> Amperes <u>to Compass</u>	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.

FRANK COOK, WELTON & BENWELL, LTD. Directors

M. Gemmell

Builder's Signature. Date Sept 21st 1914

GENERAL REMARKS.

This installation of electric light has been well fitted. The materials and workmanship are good. It has been under full working conditions & found satisfactory.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

J. G. Mackillop Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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