

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28211

Port of Hull Date of First Survey 14-12-14 Date of Last Survey 5-1-15 No. of Visits 6.
 No. in on the Iron or Steel Steam Trawler Cadet Port belonging to Hull
 Reg. Book 39 Built at Beverley By whom Cork Wilton & Gernon When built 1915
 Owners Thames Iron Works & Shipbuilding Co. Ltd. (G. Waller & Co.) Owners' Address Hull
 Yard No. 308 Electric Light Installation fitted by THE HUMBER ELECTRICAL ENGINEERING CO. When fitted 1915

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Quick Compound: Engine 5' x 3'. D. A. Beland, by Sisson, Gloucester
Dynamo 3.25 H.P. Compound wound, by Electric Construction Co. Wolverhampton
 Capacity of Dynamo 50 Amperes at 65 Volts, whether continuous or alternating current Quick
 Where is Dynamo fixed Starboard Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Starboard E. Room having switches to groups 3 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One 5 by Engine Room Off the 4 by
Engine Room. One 6 by Wheel House

If fuses are fitted on main switch board to the cables of main circuit No 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 40 arranged in the following groups:—

A	11	lights each of	16	candle power requiring a total current of	10.5	Amperes
B	11	lights each of	16	candle power requiring a total current of	10.5	Amperes
C	15	lights each of	16	candle power requiring a total current of	14.2	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						
2	Side light with	1	lamps each of	32	candle power requiring a total current of	3.8 Amperes
1	Cargo lights of	5-16			candle power, whether incandescent or arc lights	4.8

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 46 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area
 Branch cables carrying 10.5 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area
 Branch cables carrying 15 Amperes, comprised of 3 wires, each 18 S.W.G. diameter, .0053 square inches total sectional area
 Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 5 Amperes, comprised of 140 wires, each 36 S.W.G. diameter, .0025 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Hereby 600 megohm grade. Lead covered. Cable Wheel House.
Lead Covered and Armoured in all other parts of ship

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 & Armoured clipped up direct to wood or iron work

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 *Lead & Armoured*

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 *Lead & Armoured*

How are cables carried through beams *Lead & Armoured* through bulkheads, &c. *W5 Board Glands*

How are cables carried through decks *Deck Pipes*

Are any cables run through coal bunkers *Yes* 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. Fish Room*

If so, how are the lamp fittings and cable terminals specially protected *Guarded fittings W5 Clipping Glands in fully Bre cable*

Where are the main switches and fuses for these lights fitted *Lead & Armoured*

If in the spaces, how are they specially protected *No*

Are any switches or fuses fitted in bunkers *No*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *Cabled from Plugs*

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 *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 HUNTER ELECTRICAL ENGINEERING

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *aft 45ft*

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
<i>5</i>	<i>to Confen</i>		
<i>5</i>	<i>Blancie</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 BOOK, WELTON & GEDDIE, LTD.

A. P. Twiss Secretary

Builder's Signature.

Date

Jan 6th 1915

GENERAL REMARKS.

This vessel has been fitted with an electric light installation as above & the workmanship is good, on completion it was tried under full working conditions & found satisfactory

It is submitted that this vessel is eligible for THE RECORD, Elec. light.

JWD 20/1/15

Frank A. Lingen

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

Committee's Minute FRI. JAN. 22. 1915