

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29078

Port of Hull Date of First Survey 2/23/15 Date of Last Survey 7.1.16 No. of Visits 6
 No. in Reg. Book 818 on the ~~Iron~~ Steel Sck. "Sea Monarch" Port belonging to Hull
 Built at Beverley By whom Cook, Welton & Gemmell When built 1916
 Owners Humber Stevedoring Co. Ltd. Owners' Address _____
 Yard No. 322 Electric Light Installation fitted by The Humber Electrical Eng. Co. When fitted 1916.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Sinon Engine enclosed direct coupled to Tals Dynamo. all mounted on one bed plate, Engine W.P. 110 0"
 Capacity of Dynamo 53 Amperes at 65 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine Room (Starboard) Whether single or double wire system is used Double
 Position of Main Switch Board Stores end Engine Room having switches to groups 3 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One 5 way Aft, One 3 way Engine Room
1. 12 way Wheelhouse, 1. 3 way Forecastle.

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-oxidisable 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 57 16 ep. arranged in the following groups:—

Group	Number of lights	Each of	Candle power	Requiring a total current of	Amperes
A	9	lights each of 16		8.2	Amperes
B	21	lights each of 16		14.0	Amperes
C	9	lights each of 16		8.2	Amperes
D	12	lights each of 16		11.0	Amperes
E		lights each of			Amperes
3	Mast head light with 1 lamp each of 32			5.3	Amperes
2	Side light with 1 lamp each of 32			3.8	Amperes
<u>Two</u> Cargo lights of <u>5</u> <u>16cp</u> <u>2</u> <u>16cp</u> candle power, whether incandescent or arc lights					

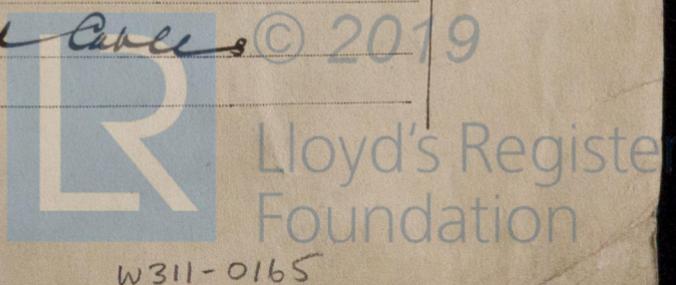
If arc lights, what protection is provided against fire, sparks, &c. no arcs.
 Where are the switches controlling the masthead and side lights placed Wheelhouse.

DESCRIPTION OF CABLES.

Use	Amperes	Comprised of	Wires	Each	S.W.G. diameter	Square inches total sectional area
Main cable carrying	53	19	wires, each	18	S.W.G. diameter, .034	square inches total sectional area
Branch cables carrying	20	3	wires, each	18	S.W.G. diameter, .053	square inches total sectional area
Branch cables carrying	12	3	wires, each	20	S.W.G. diameter, .003	square inches total sectional area
Leads to lamps carrying	1	1	wires, each	18	S.W.G. diameter, .0018	square inches total sectional area
Cargo light cables carrying	5	130	wires, each	40	S.W.G. diameter, .0024	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead Covered Babino Lead Armoured elsewhere
Menlys Cable
 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 Cables
Clipped up direct to Decks Steel work



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *No.*

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. *Provs W.T. 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 *Yes*

If so, how are the lamp fittings and cable terminals specially protected *Heavy Iron Boxes to fittings*

Where are the main switches and fuses for these lights fitted *Stokehold*

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 *Main 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.

THE NUMBER ELECTRICAL ENGINEERING CO

W.C. Shuttleworth

Electrical Engineers

Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass *PROPRIETOR*

Distance between dynamo or electric motors and steering compass _____

The nearest cables to the compasses are as follows:—

A cable carrying	<i>2</i>	Amperes	<i>6</i>	feet from standard compass	<i>8</i>	feet from steering compass
A cable carrying	<i>2</i>	Amperes	<i>6</i>	feet from standard compass	<i>8</i>	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 *nil* degrees on *all* course in the case of the

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

COOK, WELTON & GEMMELL, LTD.

W.W. Patterson

Builder's Signature.

Date

March 1st 1916

GENERAL REMARKS.

DIRECTOR.

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

It is submitted that

this vessel is eligible for
THE RECORD Elec. Light.

P. Fitzgerald.

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

Committee's Minute

Im. 9.14.—Transfer.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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