

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 20844

Port of Hull. Date of First Survey Jan 2nd Date of Last Survey Jan 2nd No. of Visits 4
 No. in Reg. Book 21 Supp on the Iron or Steel Shawlin ROSE OF ENGLAND Port belonging to Liverpool
 Built at Leby. By whom Lochane & Sons When built 1909
 Owners J. Dunbar Sons & Co Owners' Address Liverpool
 Yard No. 445 Electric Light Installation fitted by Campbell & Sherwood When fitted 1909.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A 4 pole compound wound dynamo direct coupled to a Roly Engine
 The dynamo a Campbell & Sherwood standard pattern

Capacity of Dynamo 35 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed starboard side of Engine room Whether single or double wire system is used double

Position of Main Switch Board Forward bulkhead of having switches to groups 3 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Engine room 6 switches.
Chart room 4 switches & a switch in a convenient position to each light

If cut outs 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 cable is branched or reduced in size yes and to each lamp circuit yes

If vessel is wired on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the cut outs of non-oxidisable metal yes and constructed to fuse at an excess of 80% per cent over the normal current

Are all cut outs 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

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 62-16 cp arranged in the following groups :-

A	17 18	lights each of 17 of 16 1 of 32	candle power requiring a total current of	9.5	Amperes
B	11	lights each of 6 of 16 5 of 32	candle power requiring a total current of	8.0	Amperes
C	15	lights each of 3 of 16 12 of 32	candle power requiring a total current of	13.5	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
1	Mast head light with 1 lamps each of 32		candle power requiring a total current of	included in B	Amperes
2	Side light with 2 lamps each of 32		candle power requiring a total current of	" " B	Amperes
4	Cargo lights of 3 lamps of 32		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 in Engine room

DESCRIPTION OF CABLES.

Main cable carrying 35 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .035 square inches total sectional area

Branch cables carrying 12.6 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0126 square inches total sectional area

Branch cables carrying 7 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .007 square inches total sectional area

Leads to lamps carrying 1.8 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

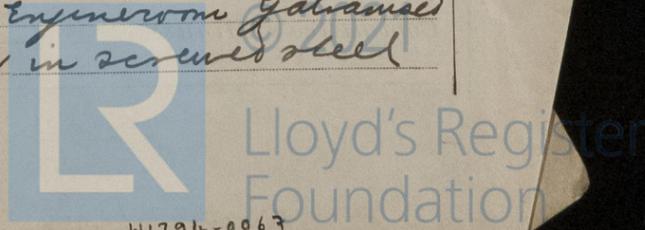
Cables lead covered cables Engine room galvanised wire armoured & braided over all. when exposed to weather in screwed steel tubing galvanised

Joints in cables, how made, insulated, and protected soldered with resin as a flux & insulated with pure rubber tape & braided over all

Are all the joints of cables thoroughly soldered, resin only having been used as a flux yes 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 no

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 Cables lead covered Engine room galvanised wire armoured & braided where exposed to weather in screwed steel tubing galvanised



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 in screwed steel tubing screwed

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

What special protection has been provided for the cables near boiler casings armoured & braided over all

What special protection has been provided for the cables in engine room armoured & braided over all

How are cables carried through beams fibre bushes through bulkheads, &c. glands

How are cables carried through decks iron deck pipes flanged to deck

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

If so, how are they protected screwed steel tubing galvanized

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 cast iron guards

Where are the main switches and cut outs for these lights fitted in Engine room

If in the spaces, how are they specially protected _____

Are any switches or cut outs fitted in bunkers _____

Cargo light cables, whether portable or permanently fixed permanently How fixed iron pipes flanged & bolted through the deck

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 ✓

The installation is yes supplied with a voltmeter and yes an amperemeter, fixed on main board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas _____

Are any switches, cut outs, 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 98% per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2500 megohms per statute mile after 24 hours' immersion in seawater.

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.

Campbell & Isherwood Ltd Electrical Engineers Date Jan 11 1909

COMPASSES.

Distance between dynamo or electric motors and standard compass 80 feet

Distance between dynamo or electric motors and steering compass 80 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>12</u>	Amperes	<u>18</u>	feet from standard compass	<u>12</u>	feet from steering compass
A cable carrying	<u>5</u>	Amperes	<u>3</u>	feet from standard compass	<u>7</u>	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.

Bochman & Sons Builder's Signature. Date 19.1.09.

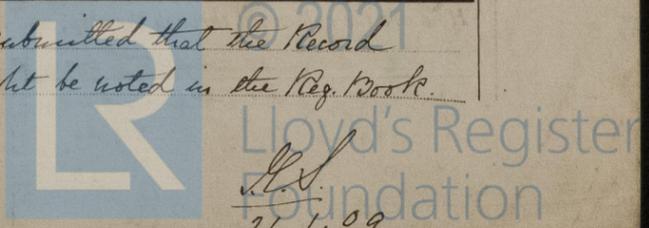
GENERAL REMARKS.

This installation of electric lights, as far as can be seen has been well fitted & the workmanship good: tried under working conditions & found satisfactory

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

Committee's Minute _____

It is submitted that the Record Elec. Light be noted in the Reg. Book.



21.1.09

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.