

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 26434

Port of Sunderland Date of First Survey 7 Apr Date of Last Survey 24 Apr '15 No. of Visits 3
 No. in on the Iron or Steel S.S. "Rose Castle" Port belonging to Liverpool
 Reg. Book Supp 39 Built at Sunderland By whom Messrs. Shaw Bros When built 1915
 Owners Rose Castle S.S. Co. Ltd. (Shaw Bros) Owners' Address Liverpool
 Yard No. 388 Electric Light Installation fitted by J. A. Holmes & Co. When fitted 1915

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 7½" X 6" open type 2 Cy Cylinder Coupled to a "Holmes"
Dynamo
 Capacity of Dynamo 100 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed on Starting Platform Whether single or double wire system is used double
 Position of Main Switch Board Rear Dynamo having switches to groups A-B-C-D-E of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each: 2 way DP. 10 A. fuse box in Eng. room. 2-6 way
5 A DP. fuse box in Engine room. 1-3 way DP. fuse box in Hospital Low. 2-3 way DP. fuse boxes in
Midship Passage. 1-3 way 10 A DP. fuse box in Midship Passage. 1-3 way DP. f. B in Saloon lobby
1-8 way DP. fuse box in Wheel House
 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 100 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 ✓ arranged in the following groups:—
 A 33 lights each of 16 candle power requiring a total current of 16.8 Amperes
 B 50 lights each of 16 candle power requiring a total current of 25.5 Amperes
 C { 35-16 C.P. lights each of 16 candle power requiring a total current of 23.0 Amperes
5-32 C.P.
 D 25-16 C.P. Arc lights each of 2500 candle power requiring a total current of 12.5 Amperes
2
 E Marconi Mains lights each of candle power requiring a total current of Amperes
2 Mast head lights with 1 lamps each of 32 candle power requiring a total current of 2.04 Amperes
2 Side light with 1 lamps each of " candle power requiring a total current of 2.04 Amperes
5 Cargo lights of 5 X 16 C candle power, whether incandescent or arc lights Incandescent
2 Arc 6 ½ amperes
 If arc lights, what protection is provided against fire, sparks, &c. in Shaded Glazed Hexagonal lanterns

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

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 37 wires, each 16 S.W.G. diameter, .1168 square inches total sectional area
 Branch cables carrying 16.8 Amperes, comprised of 7 wires, each 17 S.W.G. diameter, .01695 square inches total sectional area
 Branch cables carrying 33.0 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .02214 square inches total sectional area
 Leads to lamps carrying 5 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 2.6 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

all Conductors are formed of H.C. tinned Copper wire, insulated
with pure para rubber & Vule rubber & taped & braided overall

Joints in cables, how made, insulated, and protected None made, "looping in System" carried out.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances None 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 None

Are there any joints in or branches from the cable leading from dynamo to main switch board None

How are the cables led through the ship, and how protected Mains for: R.F. V.I.R. Cables run in Galv
wire pipes on deck. Armored wires in Machy Spaces & lead covered in
Accommodation

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 covered or V.I.P. in Galv iron pipe

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

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

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

How are cables carried through beams bushed with fibre through bulkheads, &c. Stuffed glands

How are cables carried through decks in pipes flanged & made water tight

Are any cables run through coal bunkers None or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected Shutters between decks run in Galv iron pipes

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage None

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 None

Cargo light cables, whether portable or permanently fixed Portable How fixed Socket Connections

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 on Main 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.

J.H. Roberts & Co Electrical Engineers

Date 13/4/15

COMPASSES.

Distance between dynamo or electric motors and standard compass approx 150

Distance between dynamo or electric motors and steering compass 144

The nearest cables to the compasses are as follows:—

A cable carrying 5 Amperes inside feet from standard compass inside feet from steering compass

A cable carrying 1.5 Amperes approx 9 feet from standard compass approx 5 feet from steering compass

A cable carrying 9 Amperes 15 feet from standard compass 10 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 0 degrees on any course in the case of the standard compass and 0 degrees on any course in the case of the steering compass. system ok

FOR SHORT BROTHERS, LIMITED

J. H. Roberts Builder's Signature. Date 13 May 1915

GENERAL REMARKS.

The installation has been satisfactorily fitted in the vessel. Tested at full load and found good.

It is submitted that this vessel is eligible for

THE RECORD Elec. light. 11/5/15

Lewis Davis

— 8 MAY 1915

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

Committee's Minute.