

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 9971.

Port of Middlesbrough Date of First Survey and Date of Last Survey while Building No. of Visits 1
 No. in Reg. Book on the Irons Steel S.S. "Bryntawe" Port belonging to Swansea
 Built at Stockton By whom Messrs Richardson Dock & Co When built 1917
 Owners H & B. Goldberg Owners' Address Swansea
 Yard No. 654 Electric Light Installation fitted by Messrs Falconar Cross & Co When fitted 1917
Newcastle

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Six pole compound wound dynamo direct coupled to single cylinder open type engine - 350 R.P.M.
 Capacity of Dynamo 92 ✓ Amperes at 100 ✓ Volts, whether continuous or alternating current continuous ✓
 Where is Dynamo fixed Engine Room Whether single or double wire system is used double ✓
 Position of Main Switch Board Engine Room near dynamo having switches to groups A-B-C+D of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Prop 4 Way: Engineers & Officers Mess Room = 6:
Engine Room = 5: Saloon pantry = 12
 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
 Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 50 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 120 arranged in the following groups:—
 A Engrs & aft 30 lights each of 16 candle power requiring a total current of 18.0 Amperes
 B Engine Room 30 lights each of 16 candle power requiring a total current of 18.0 Amperes
 C Saloon 60 lights each of 16 candle power requiring a total current of 36.0 Amperes
 D Wireless lights each of 16 candle power requiring a total current of 5.0 Amperes
 E ✓ lights each of ✓ candle power requiring a total current of ✓ Amperes
2 Mast head light with 1 lamps each of 32 candle power requiring a total current of 2 Amperes
2 Side light with 1 lamps each of 32 candle power requiring a total current of 2 Amperes
5 Cargo lights of 96 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 chart-house

DESCRIPTION OF CABLES.

Main cable carrying 92 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .094 square inches total sectional area
 Branch cables carrying 36 Amperes, comprised of 7 wires, each 14 S.W.G. diameter, .035 square inches total sectional area
 Branch cables carrying 18 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area
 Leads to lamps carrying 2 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 3.6 Amperes, comprised of 70 wires, each 36 S.W.G. diameter, .0024 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

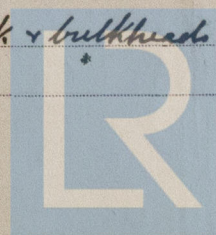
Pure rubber, vulcanized rubber, taped and Braided

Joints in cables, how made, insulated, and protected No joints except mechanical ones

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 Clipped to underside of deck & bulkheads: lead sheathed and clipped to wood in cabins



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 sheathed, armoured and braided

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

What special protection has been provided for the cables near boiler casings 80

What special protection has been provided for the cables in engine room 80

How are cables carried through beams bushed holes through bulkheads, &c. W.T. glands

How are cables carried through decks iron deck pipes

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 Steel armoured and braiding

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 Portable How fixed ✓

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double wired

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 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass

about 90'
" 100'

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
6	22	20	20
2	10	10	10
5	6	6	6

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.

FOR RICHARDSON, DUCK & CO. LTD.

E. Robson

Managing Director

Builder's Signature.

Date

21st Decr. 1917.

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules; is of good materials and workmanship and on completion was examined under full working conditions and found satisfactory

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

AWD 28/12/17

W. Morrison

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

Committee's Minute



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