

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 49342

Port of Sunderland Date of First Survey _____ Date of Last Survey 30 July 98 No. of Visits _____
 No. in _____ on the Iron Steel S.S. "Tuscarora" Port belonging to London
 Reg. Book _____ Built at Sunderland By whom Sir James Laing When built 1898
 Owners The Tuscarora S.S. Co. Ltd Owners' Address London
 Yard No. 555 Electric Light Installation fitted by Holmes & Co. When fitted 1898

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-9 1/2" x 9" spec. R. & J. left hand engine to work at 80 lbs. D"
No. 12-14 dynamo compound wound
 Capacity of Dynamo 230 Amperes at 60 Volts, whether continuous or alternating current Cont.
 Where is Dynamo fixed In Engine Room
 Position of Main Switch Board _____ having switches to groups _____ of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each As below

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 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 50% 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 Yes

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

Total number of lights provided for 117 arranged in the following groups:—

A Forward 11 lights each of 16 candle power requiring a total current of 16 Amperes

B Middle 33 lights each of 16 candle power requiring a total current of 33 Amperes

C Aft 2 lights each of 16 candle power requiring a total current of 20 Amperes

D Upper deck 14 lights each of 16 candle power requiring a total current of 44 Amperes

E Aft 15 lights each of 16 candle power requiring a total current of 15 Amperes

F Engine 15 lights each of 16 candle power requiring a total current of 39 Amperes

1 Mast head light with _____ lamps each of _____ candle power requiring a total current of 4 Amperes

2 Side light with _____ lamps each of _____ candle power requiring a total current of 4 Amperes

Bunkers 7 lights each of 16 candle power, whether incandescent or not 112

If are lights, what protection is provided against fire, sparks, &c. 200 x 16 cp

Where are the switches controlling the masthead and side lights placed 6 x 16 cp

DESCRIPTION OF CABLES.

Main cable carrying 230 Amperes, comprised of 37 wires, each 13 L.S.G. diameter, 246 square inches total sectional area

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

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

Leads to lamps carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ 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.

Henlys Glass A. 2000 m. resistance

Joints in cables, how made, insulated, and protected Soldered Canas & IR
Iron Head tubes

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 Yes

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 through wood casing in engine room through bulk

SLD1012-0156

© 2021

Lloyd's Register Foundation

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 Leak casing

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

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

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

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

How are cables carried through decks Iron & lead deck tubes

Are any cables run through coal bunkers No or cargo spaces No or spaces which may be used for carrying cargo, stores, or baggage No

If so, how are they protected In iron pipes

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage bunkers yes

If so, how are the lamp fittings and cable terminals specially protected cast iron covers

Where are the main switches and cut outs for these lights fitted in engine room etc. (not in bunkers)

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 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

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 yes

Are any switches, cut outs, or joints of cables fitted in the pump room or companion fittings yes. no joints. separate

How are the lamps specially protected in places liable to the accumulation of vapour or gas special covered & guarded fittings

The installation is yes supplied with a voltmeter and yes an amperemeter, fixed of Main Switch

The copper used is guaranteed to have a conductivity of 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2000 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.

Electrical Engineers

Date Sept 5/98

COMPASSES.

Distance between dynamo or electric motors and standard compass 97 ft

Distance between dynamo or electric motors and steering compass 100 "

The nearest cables to the compasses are as follows:—

A cable carrying 20 Amperes 15 feet from standard compass 15 feet from steering compass

A cable carrying Amperes feet from standard compass 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 3° degrees on course in the case of the standard compass and 4° degrees on course in the case of the steering compass.

Builder's Signature.

Date Sept 10 1898

GENERAL REMARKS.

This installation as far as can be seen appears to be in accordance with the requirements of the Rules

W. L. Moore

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

Committee's Minute

It is submitted that this installation appears to be in accordance with the Rules

10 only last

Lloyd's Register Foundation

24.9.98

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM NO. 13.