

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 9743.

Port of Middlesbrough Date of First Survey and Date of Last Survey while Building No. of Visits 1
 No. in Reg. Book on the Iron or Steel 11 "Twin" Port belonging to Misses Brang Taylor & Co Ltd
 Built at Stockton By whom Misses Brang Taylor & Co Ltd When built 1917
 Owners Misses W. H. Seager & Co Ltd Owners' Address Burdett
 Yard No. 183 Electric Light Installation fitted by Falmer Bros & Co. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

7 x 6 Open type engine to work with 100 lbs per sq inch steam pressure & coupled direct to compound wound dynamo running @ 350 R.P.M. (six pole - compound)
 Capacity of Dynamo 93 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Shaking Platform Whether single or double wire system is used double
 Position of Main Switch Board Near dynamo having switches to groups A. B. C. D. E. of lights, &c., as below
 Positions of auxiliary fuses boards and numbers of fuses on each 2 x 5 Way in Midship bathroom
1 x 7 Way in Bathroom, 1 x 7 Way in Engine Room, 1 x 7 Way in Prop.
1 x 6 " " Engine Room
 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 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 134 arranged in the following groups :-
 A Midships 2 49 lights each of 16 candle power requiring a total current of 26.7 Amperes
 B Engine room 2 29 lights each of " candle power requiring a total current of 15.8 Amperes
 C Up 32 lights each of " candle power requiring a total current of 17.4 Amperes
 D Machinery 24 lights each of " candle power requiring a total current of 13 Amperes
 E Wireless lights each of " candle power requiring a total current of " Amperes
 2 Mast head lights with 1 lamp each of 32 candle power requiring a total current of 2.1 Amperes
 2 Side lights with 1 lamp each of " candle power requiring a total current of 2.1 Amperes
 6 Cargo lights of 5 x 16 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 bathroom

DESCRIPTION OF CABLES.

Main cable carrying 93 Amperes, comprised of 14 wires, each 14 S.W.G. diameter, .0945 square inches total sectional area
 Branch cables carrying 26.7 Amperes, comprised of 7 wires, each 15 S.W.G. diameter, .0182 square inches total sectional area
 Branch cables carrying 17.5 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .0113 square inches total sectional area
 Leads to lamps carrying 34 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 2.7 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulated copper. Pure Para rubber. Vulk. I.R. taped, braided & compounded.
Lead covered in battery, Armoured & Braided elsewhere

Joints in cables, how made, insulated, and protected

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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 yes

How are the cables led through the ship, and how protected Armoured & braided cables run through beams & clipped up under decks, or across bulkheads



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

Generally

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture. In main pipe up, mast

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

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

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

How are cables carried through beams

Fibre bushes

through bulkheads, &c.

W. J. glands

How are cables carried through decks

Duck tubes

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

If so, how are they protected

Armoured - Banded

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

W. J. glands

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.

Galeman & Co.

Electrical Engineers

Date

11/5/17

COMPASSES.

Distance between dynamo or electric motors and standard compass

96 ft

Distance between dynamo or electric motors and steering compass

88 "

The nearest cables to the compasses are as follows:—

A cable carrying 10.9 Amperes 10 feet from standard compass 10 feet from steering compass

A cable carrying 5.4 Amperes 1 feet from standard compass 1 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

courses in the case of the

standard compass and

nil

degrees on

all

courses in the case of the steering compass.

For CRAIG TAYLOR & CO. LIMITED

William Young

DIRECTOR

Builder's Signature.

Date

16.5.17

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules. The materials & workmanship are good and on completion was tested under full working conditions & found satisfactory.

It is submitted that this vessel is eligible to

THE RECORD. Elec. light.

Wm Morrison

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

Committee's Minute

FRI. 25 MAY. 1917