

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 10946

Port of Southampton Date of First Survey 7th April Date of Last Survey 15th May No. of Visits 5No. in Reg. Book on the Steel S.S. "LORIENT"

Port belonging to

Built at SouthamptonBy whom Messrs. Dibles L^{td}When built 1921Owners Morgan & CadoganOwners' Address Dowla's Chambers, CardiffYard No. 116 Electric Light Installation fitted byCAMPBELL & WOODWARD LTDWhen fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Open type 4 1/2 x 4. 400 revs.Capacity of Dynamo 30 Amperes at 100 Volts, whether continuous or alternating current continuousWhere is Dynamo fixed Engine RoomWhether single or double wire system is used DoublePosition of Main Switch Board — D — having switches to groups 25, 11, 14, 8, of lights, &c., as belowPositions of auxiliary switch boards and numbers of switches on each Chart Room 8 switches Engine Room 4 switches.8 way 5 amp Double Pole Distribution board Chart Room 3 way 5 amp DP Distribution board.4 needles Engine Room Engineers quarters.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 auxiliarycircuits Yes and at each position where a cable is branched or reduced in size Yes and to each lamp circuit YesIf 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 YesAre the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 25 per cent over the normal currentAre all fuses fitted in easily accessible positions Yes Are the fuses of standard dimensions Yes If wire fuses are usedare permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit YesAre all switches and fuses constructed of incombustible materials and fitted on incombustible bases YesTotal number of lights provided for 58 arranged in the following groups:—A 36 lights each of 16 candle power requiring a total current of 18 AmperesB 14 lights each of 16 candle power requiring a total current of 4 AmperesC 8 lights each of 16 candle power requiring a total current of 4 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

One Mast head light with 1 lamps each of 32 candle power requiring a total current of one AmperesTwo Side light with 2 lamps each of 32 candle power requiring a total current of Two AmperesTwo 5 lamp cargo lights of 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 Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 30 Amperes, comprised of 4 wires, each 0.064 S.W.G. diameter, 0.0225 square inches total sectional areaBranch cables carrying 18 Amperes, comprised of 4 wires, each 0.036 S.W.G. diameter, 0.0100 square inches total sectional areaBranch cables carrying 4 Amperes, comprised of 4 wires, each 0.036 S.W.G. diameter, 0.0100 square inches total sectional areaLeads to lamps carrying 1 Amperes, comprised of 1 wires, each 0.044 S.W.G. diameter, 0.0015 square inches total sectional areaCargo light cables carrying 5 Amperes, comprised of 3 wires, each 0.036 S.W.G. diameter, 0.0030 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Galvanized Swaged Conduit. securely clipped to beams with holes.
all ends of tubes fitted with fibre bushes. Inspection boxes fitted in Pipe
work. lead covered cable fitted in cabins. clipped with brass clips.Joints in cables, how made, insulated, and protected None

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 NoHow are the cables led through the ship, and how protected Steel Tubes

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008409-008416-0090

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 Steel tubes.

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

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

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

How are cables carried through beams Steel tubes through bulkheads, &c. Steel tubes.

How are cables carried through decks Do Do.

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

If so, how are they protected Steel tubes.

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 no.

Where are the main switches and fuses for these lights fitted no.

If in the spaces, how are they specially protected no.

Are any switches or fuses fitted in bunkers no.

Cargo light cables, whether portable or permanently fixed Portable. How fixed Campbell & Ingham Connection Box.

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 main switchboard

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 2500. 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.

CAMPBELL & INGHAM LTD.

M. Ingham

Electrical Engineers

Date 13th April 21

COMPASSES.

Distance between dynamo or electric motors and standard compass 120 feet.

Distance between dynamo or electric motors and steering compass 100 "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>18.</u>	<u>20.</u>	<u>10.</u>	<u>feet from steering compass</u>
<u>1</u>	<u>10.</u>	<u>1</u>	<u>feet from steering compass</u>
<u>A cable carrying</u>	<u>Amperes</u>	<u>feet from standard compass</u>	<u>feet from steering compass</u>

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 degrees on course in the case of the standard compass and degrees on course in the case of the steering compass.

Builder's Signature.

For and on behalf of
Date DIBLES (1918) LIMITED.

GENERAL REMARKS.

The electrical installation has been fitted in accordance with the rule requirements. The same has been tried under working conditions and found satisfactory.

It is submitted that
FEE = £3-0-0 this vessel is eligible for
THE RECORD. Elec. light.

A. H. Boyle

Surveyor to Lloyd's Register of Shipping.

Committee's Minute



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