

16 JAN 1925

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 9267

Port of Belfast Date of First Survey 28th Novr. 1924 Date of Last Survey 6th Jan 1925 No. of Visits 7
 No. in Reg. Book on the ~~Iron~~ Steel S. S. Antinous Port belonging to London
 Built at Belfast By whom Workman Clark & Co. Ltd. When built 1915
 Owners New Egypt & Devant Shipping Coy. Ltd. Owners' Address Sunderland
 Yard No. 115 Electric Light Installation fitted by Sunderland Forged Eng. Coy. Ltd. When fitted 1924

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One open type steam engine direct coupled to
 One compound wound continuous rated multipolar dynamo
 Capacity of Dynamo 90 Amperes at 110 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 having switches to groups four of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Engine Room 6st. Bd. 8 switches
Wheel House 8 switches Saloon 5 switches Amidships 6 switches
 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 100 arranged in the following groups:—
 A Accommodation lights each of 16CP candle power requiring a total current of 4 Amperes
 B Navigation Ford lights each of 16CP candle power requiring a total current of 14 Amperes
 C Eng. & Boiler Rms. lights each of 16CP candle power requiring a total current of 16 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
 2 Mast head lights with 1 lamps each of 32 candle power requiring a total current of 1.0 Amperes
 2 Side light with 1 lamps each of 32 candle power requiring a total current of 1.0 Amperes
 6 Cargo lights of 200 candle power, whether incandescent ~~or gas~~ lights Yes
 If are lights, what protection is provided against fire, sparks, &c. None fitted
 Where are the switches controlling the masthead and side lights placed Wheel House

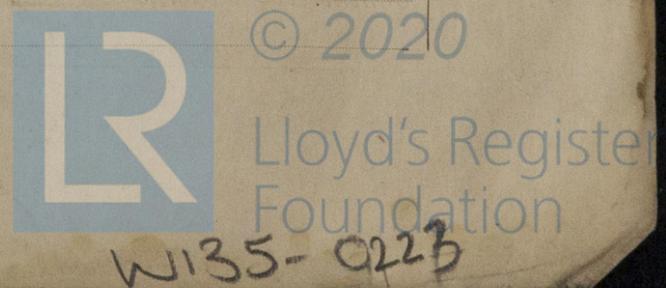
DESCRIPTION OF CABLES.

Main cable carrying 90 Amperes, comprised of 19 wires, each .072 S.W.G. diameter, .0750 square inches total sectional area
 Branch cables carrying 14 Amperes, comprised of 7 wires, each .064 S.W.G. diameter, .0225 square inches total sectional area
16 Amperes, comprised of 7 wires, each .036 S.W.G. diameter, .0070 square inches total sectional area
 Branch cables carrying 4 Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area
 BRANCH CABLE TO W/T Leads to lamps carrying 4.5 Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area
20 Amperes, comprised of 3 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area
 Cargo light cables carrying 5.5 Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper conductors insulated with pure and vulcanising India Rubbr. Taped and the whole vulcanised together and finished:—
 Lead covered Armoured and Braided cables in Machinery and all exposed places.
 Lead covered and Braided cables in Accommodation.
 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 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
 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 Lead covered, armoured and braided cables secured to beams by galvanized clips and brass screws



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, Armoured and Braided

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

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

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

How are cables carried through beams Holes bushed with Filze through bulkheads, &c. W/T. Packing Glands

How are cables carried through decks Deck Tubes made W/T.

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

If so, how are they protected Lead covered, Armoured and Braided

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 None

Where are the main switches and fuses for these lights fitted None

If in the spaces, how are they specially protected None

Are any switches or fuses fitted in bunkers No.

Cargo light cables, whether portable or permanently fixed Portable. How fixed To Heavy Brass Terminals fitted in Lead Iron Boxes on Deck

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel None

How are the returns from the lamps connected to the hull None

Are all the joints with the hull in accessible positions None

Is the installation supplied with a voltmeter Yes. and with an amperemeter Yes. fixed Engine Room

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.

P. Pro Sunderland Forge & Eng. Co. Ltd. J. Thompson Electrical Engineers Date 12 JAN 25

COMPASSES.

Distance between dynamo or electric motors and standard compass 90 feet

Distance between dynamo or electric motors and steering compass 85 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>5.5</u>	Amperes	<u>12</u>	feet from standard compass	<u>6</u>	feet from steering compass
A cable carrying	<u>3</u>	Amperes	<u>Lead into</u>	feet from standard compass		feet from steering compass
A cable carrying	<u>3</u>	Amperes	<u>Lead into</u>	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 no degrees on all course in the case of the standard compass and no degrees on all course in the case of the steering compass.

PRO WORKMAN, CLARK & CO., LIMITED,
W. A. Skumble Builder's Signature. Date 14-1-25
ASSISTANT SECRETARY.

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules & has satisfactorily on trial under full load.

Dr G. S.
see reply report.

Elec. Light.
W.A.
14/1/25.

William Butler
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

2 in. 11. 13. — Transfer.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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