

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5712

Port of Truste Date of First Survey June 1 Date of Last Survey July 18 No. of Visits three
 No. in Reg. Book 50671 on the Iron or Steel S.S. "Alga" Port belonging to Truste
 Built at Newcastle By whom Swan Hunter & W. Gray Richardson built 1905-12.
 Owners Ind. Stevedoring Soc. in Ayon Owners' Address _____
 Yard No. _____ Electric Light Installation fitted by Pardon & Mansel, Truste When fitted 1921.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 7 KW dynamo direct coupled to single cylinder steam engine

Capacity of Dynamo 63.6 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed in engine room Whether single or double wire system is used double
 Position of Main Switch Board near dynamo having switches to groups 6 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 3 boards in accom. amidships with 4, 4, & 3 switches respectively; 1 with 5 in chart room; 1 in accom. forward with 3; 1 in poop with 2; 1 in S.P. with 5 switches
 If fuses are fitted on main switch board to the cables of main circuit Ys. and on each auxiliary switch board to the cables of auxiliary circuits Ys. and at each position where a cable is branched or reduced in size Ys. and to each lamp circuit Ys.
 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 Ys.
 Are the fuses of non-oxidizable metal Ys. and constructed to fuse at an excess of 100 per cent over the normal current
 Are all fuses fitted in easily accessible positions Ys. Are the fuses of standard dimensions Ys. 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 Ys.
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Ys.

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

A	62 (MF) + 16 (CF)	lights each of	62 of 16 & 16 of 10	candle power requiring a total current of	23.1	Amperes
B	5 (MF)	lights each of	25	candle power requiring a total current of	1.25	Amperes
C	WIRELESS	lights each of	—	candle power requiring a total current of	5.00	Amperes
D	12 (MF) + 8 (CF)	lights each of	16	candle power requiring a total current of	7.56	Amperes
E	7 (MF) + 8 (CF)	lights each of	16	candle power requiring a total current of	6.11	Amperes
F	34 (MF) + 3 (CF)	Must head light with	1 lamps each of 25	candle power requiring a total current of } <u>included in above.</u>	11.40	Amperes
G	2	Side light with	1 lamps each of 25			
	32	Cargo lights of	10	candle power, whether incandescent or arc lights	in group A, D + E	

If arc lights, what protection is provided against fire, sparks, &c. Ys.

Where are the switches controlling the masthead and side lights placed In Chart Room with automatic coloured signals.

DESCRIPTION OF CABLES.

Main cable carrying	54 Amperes, comprised of	19 wires, each	1.85 S.W.G. diameter,	35 square inches total sectional area
Branch cables carrying	23.1 Amperes, comprised of	7 wires, each	1.30 S.W.G. diameter,	10 square inches total sectional area
Branch cables carrying	7.56 Amperes, comprised of	7 wires, each	0.9 S.W.G. diameter,	4.0 square inches total sectional area
Leads to lamps carrying	2.9 Amperes, comprised of	1 wires, each	1.1 S.W.G. diameter,	0.98 square inches total sectional area
Cargo light cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Wires covered with 2 coats rubber, spun yarn, lead, marlin, spiral steel (Sheet) and marlin

Joints in cables, how made, insulated, and protected junction boxes

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

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 Armoured and fastened with clips

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 Armoured or lead covered

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

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

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

How are cables carried through beams Armoured through bulkheads, &c. w/o plates.

How are cables carried through decks w/o tubes

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 Armoured

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 ✓

Cargo light cables, whether portable or permanently fixed Portable How fixed Plugs.

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 switch 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 _____ 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.

OFFICINA ELETTROMECCANICA
SARDON & MANFÈ

Electrical Engineers Date _____

COMPASSES.

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

Distance between dynamo or electric motors and steering compass 120 .

The nearest cables to the compasses are as follows:—

A cable carrying <u>3</u> Amperes <u>10 ft.</u> feet from standard compass	<u>4</u> feet from steering compass
A cable carrying <u>4</u> Amperes <u>10</u> feet from standard compass	<u>5</u> feet from steering compass
A cable carrying <u>1/2</u> Amperes <u>in the</u> feet from standard compass	<u>in the</u> 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 _____ course in the case of the standard compass and Nil. degrees on _____ course in the case of the steering compass.

Builder's Signature. Date _____

GENERAL REMARKS.

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

See Lib 609.

It is submitted that this vessel is eligible for the RECORD. Elec Light

Geo. J. Munro

Surveyor to Lloyd's Register of Shipping.

Committee's Minute



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.