

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5963.

Port of Antwerp Date of First Survey 20-11-03 Date of Last Survey 5-12-04 No. of Visits 14
 No. in Reg. Book on the Iron Steel s/s "Roema" Port belonging to Audros
 Built at Hoboken near Antwerp from De Chantier Naval Audros When built 1904
 Owners A. Embiricos Owners' Address Audros, Greece
 Yard No. 23 Electric Light Installation fitted by J. H. Holmes Co. When fitted 1904

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Single Engine vertical type engine - compound wound, continuous current dynamo.
 Capacity of Dynamo 50 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed In Engine Room
 Position of Main Switch Board on bulkhead having switches to groups A.B.C.D.E. of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1 in Engine Room (6 switches)
1 for Cargo (4 switches).
 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 Porcelain.

Total number of lights provided for 90 arranged in the following groups:—

A (Saloon)	18	lights each of	16	candle power requiring a total current of	10.8	Amperes
B (Berths)	15	lights each of	16	candle power requiring a total current of	9	Amperes
C (E.R.)	18	lights each of	16	candle power requiring a total current of	10.8	Amperes
D (Stole)	7	lights each of	16	candle power requiring a total current of	4.2	Amperes
E (U.S.R.)	12	lights each of	16	candle power requiring a total current of	7.2	Amperes
F. Cargo	20	lights each of	16	candle power requiring a total current of	12.0	Amperes
— 2 Mast head light with	1	lamps each of	32	candle power requiring a total current of	1.2	Amperes
2 Side light with	1	lamps each of	32	candle power requiring a total current of	1.2	Amperes
4 Cargo lights of			16	candle power, whether incandescent or gas lights	3	-

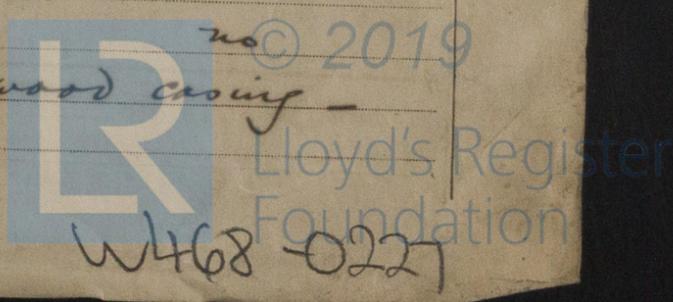
If are lights, what protection is provided against fire, sparks, &c. ✓
 Where are the switches controlling the masthead and side lights placed Wheel House.

DESCRIPTION OF CABLES.

Main cable carrying 50 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0612 square inches total sectional area
 Branch cables carrying 10 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0127 square inches total sectional area
 Branch cables carrying 9 Amperes, comprised of 7 wires, each 19 L.S.G. diameter, .0084 square inches total sectional area
 Leads to lamps carrying 4 Amperes, comprised of 7 wires, each 21.5 L.S.G. diameter, .005 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 7 wires, each 21.5 L.S.G. diameter, .005 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized rubber + braided wire in iron pipe for tween decks. Pak casings in Engine Room, wood casings in cabins.
 Joints in cables, how made, insulated, and protected no joints (boxes).
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux None Are all joints in accessible positions, none being made in bunks, 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 no
 How are the cables led through the ship, and how protected as above, pipes + wood casing.



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 Iron pipes

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Pipes & teak casings

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

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

How are cables carried through beams Fibre ferrules through bulkheads, &c. glands

How are cables carried through decks Deck pipes

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

If so, how are they protected Iron pipes

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

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

Where are the main switches and cut outs for these lights fitted

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

Are any switches, cut outs, 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 installation is supplied with a voltmeter and an amperemeter, fixed

The copper used is guaranteed to have a conductivity of 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 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.

L. Sarnidge Electrical Engineers Date 19-2-04

COMPASSES.

Distance between dynamo or electric motor and standard compass 92 feet

Distance between dynamo or electric motor and steering compass 90 "

The nearest cables to the compasses are as follows:—

A cable carrying <u>7</u> Amperes	<u>10</u> feet from standard compass	<u>10</u> 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 nil degrees on nil course in the case of the standard compass and no degrees on ✓ course in the case of the steering compass.

VanderVort Compass Mfg. Co. Builder's Signature. Date 19/2/04

GENERAL REMARKS.

The fittings are substantial & good.

J. P. Cornish

Surveyor to Lloyd's Register of British and Foreign Shipping

Committee's Minute

It is submitted that this installation appears to be satisfactory.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.