

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 8454.

Port of Middlesbrough Date of First Survey While Date of Last Survey building No. of Visits 5  
 No. in on the Iron or Steel S.S. "Poseidon" Port belonging to S. Gravenhage  
 Reg. Book 903 Built at Middlesbrough By whom Smith's Dock Co. Ltd. When built 1914  
 Owners Anglo-Saxon Petroleum Co. Ltd. Owners' Address London *Class contemplated*  
 Yard No. 574 Electric Light Installation fitted by Smith's Dock Co. Ltd. When fitted 1914

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Single Motor Compound Wound Dynamo

Capacity of Dynamo 52 Amperes at 115 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 Yes A.B.C.D. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Back light & group of lights  
provided with switches as required.

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 See fuses

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 88 arranged in the following groups:—

A <u>Engine room</u>	<u>16</u> lights each of <u>16</u>	candle power requiring a total current of <u>8</u>	Amperes
B <u>Aft Deck</u>	<u>42</u> lights each of <u>16</u>	candle power requiring a total current of <u>20</u>	Amperes
C <u>Navigation</u>	<u>14</u> lights each of <u>16 + 32</u>	candle power requiring a total current of <u>9 1/2</u>	Amperes
D <u>Foreward</u>	<u>10</u> lights each of <u>16</u>	candle power requiring a total current of <u>5</u>	Amperes
E	lights each of	candle power requiring a total current of	Amperes
1 <u>Mast head light with 16 lamps</u>	each of <u>32</u>	candle power requiring a total current of <u>1</u>	Amperes
4 <u>Side light with 1 lamp</u>	each of <u>32</u>	candle power requiring a total current of <u>4</u>	Amperes
2 <u>Cluster Cargo lights of 6 lights</u>	<u>16</u>	candle power, whether incandescent or arc lights <u>incandescent</u>	

If arc lights, what protection is provided against fire, sparks, &c. None

Where are the switches controlling the masthead and side lights placed Chart Room

## DESCRIPTION OF CABLES.

Main cable carrying 42 1/2 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, 0.3375 square inches total sectional area  
 Branch cables carrying 20 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, 0.221400 square inches total sectional area  
 Branch cables carrying 9 1/2 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, 0.221400 square inches total sectional area  
 Leads to lamps carrying 1/2 Amperes, comprised of 3 wires, each 22 S.W.G. diameter, 0.018120 square inches total sectional area  
 Cargo light cables carrying 3 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, 0.029944 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

2.500 Miegohm Grade Lead Covered and Lead Covered and Armoured Cables

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 None 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 None

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 Galvanized Iron Pipes





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 Galvanized Iron Pipes

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

What special protection has been provided for the cables near boiler casings Lead Covered & Armoured Cables

What special protection has been provided for the cables in engine room Lead Covered & Armoured Cables

How are cables carried through beams Galvanized iron pipes through bulkheads, &c. Galvanized iron pipes

How are cables carried through decks Galvanized iron pipes

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

If so, how are they protected Lead Covered & Armoured Cables

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 Lead Covered & Armoured Cables

Where are the main switches and fuses for these lights fitted Lead Covered & Armoured Cables

If in the spaces, how are they specially protected Lead Covered & Armoured Cables

Are any switches or fuses fitted in bunkers Lead Covered & Armoured Cables

Cargo light cables, whether portable or permanently fixed Portable How fixed In C.I. Connection boxes

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

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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion None

How are the lamps specially protected in places liable to the accumulation of vapour or gas Watertight fittings

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. Yes

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.

Richmond Electrical Engineers

Date 21-5-14

COMPASSES.

Distance between dynamo or electric motors and standard compass 65 ft.

Distance between dynamo or electric motors and steering compass 65 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>1/2</u>	<u>1</u>	<u>1</u>	<u>1</u>
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 every course in the case of the standard compass and Nil degrees on every course in the case of the steering compass.

FOR SMITH'S DOCK CO. L

W. Cairns

Builder's Signature.

Date 22-5-14

GENERAL REMARKS.

This Electric Light Installation has been fitted on board in accordance with the Rules and tried under full working conditions with satisfactory results.

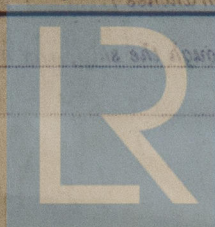
It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

J.W.D.

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

Committee's Minute



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.