

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 8573

Port of Middlesbrough Date of First Survey While Date of Last Survey Building No. of Visits 4
 No. in Reg. Book on the Iron or Steel STEAM TRAWLER "Brock" Port belonging to
 Built at Middlesbrough By whom Smiths Dock Co. Ltd. When built 1914
 Owners Smiths Dock Co. Ltd. Owners' Address
 Yard No. 593 Electric Light Installation fitted by Smiths Dock Co. Ltd. When fitted 1914

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Multipolar Compound Wound Dynamo and Vertical Engine

Capacity of Dynamo 40 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 A. B. C of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One switch board in Engine Room with 14 switches with nameplates. One board in fore-castle with six switches. All other lights have separate switches fixed near lights.
 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 Fifty-five arranged in the following groups:—

A Forward	12	lights each of	16	candle power requiring a total current of	6 1/2	Amperes
B Deck	26	lights each of	8 - 16 - 32	candle power requiring a total current of	14	Amperes
C Aft.	17	lights each of	16	candle power requiring a total current of	9	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
3 Mast head light with	1	lamps each of	32	candle power requiring a total current of	3	Amperes
2 Side light with	1	lamps each of	32	candle power requiring a total current of	2	Amperes
1 Cargo lights of	5-lamps		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 Engine Room.

DESCRIPTION OF CABLES.

Main cable carrying 29 1/2 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, 0.0221400 square inches total sectional area
 Branch cables carrying 14 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, 0.046050 square inches total sectional area
 Branch cables carrying 9 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, 0.070050 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 2 1/2 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, 0.029940 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

2.500 Megohm Grade Lead Covered Cable

Joints in cables, how made, insulated, and protected No joints.

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 Strong wood troughing & screwed cover



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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 Lead covered cables

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

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

How are cables carried through beams Lead covered cables buckled through bulkheads, &c. Iron pipes

How are cables carried through decks Iron pipes

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 Strong wooden strapping and secured covers.

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

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

Where are the main switches and fuses for these lights fitted Engine Room

If in the spaces, how are they specially protected —

Are any switches or fuses fitted in bunkers No.

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 —

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 4,500 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.

FOR SMITH'S DOCK CO., L^d

George Richmond Electrical Engineers

Date 4/8/14

COMPASSES.

Distance between dynamo or electric motors and standard compass 50 ft.

Distance between dynamo or electric motors and steering compass 50 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 —

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.

FOR SMITH'S DOCK CO., L^d

W. Cairns

Builder's Signature.

Date

6/8/14

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules: is of good materials and workmanship and was examined under full working conditions and found in order. It is submitted that this vessel is eligible for

THE RECORD. Elec light

T.J.S.
10.8.14

Thomas Miller

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

Committee's Minute

TUE. AUG. 11. 1914

Imagined—Transfer.

These parties

Signal Letters

Official Number

136,8

No., Date, and Port

Whether British or Foreign Built.

British.

Number of Decks

Number of Masts

Rigged ...

Stern

Build ...

Galleries ...

Head ...

Framework and

vessel ...

Number of Bulkheads

Number of water

and their capacity

Total to quarter the depth to bottom of keel

No. of sets of Engines.

Description.

One Triple

No. of Shafts.

Particulars

Description of Number of Iron or Steel Loaded Press

One

Gross Tonnage

Under Tonnage

Space or spaces between

Turret or Trunk

Forecastle ...

Bridge space

Poop or Break

Side Houses

Chart House

Spaces for machinery

Section 78 (2) of 1894

Excess of Hatchways

Gross Tonnage

Deductions, as per

Register

NOTE 1.—The tonnage

Deck for passenger

NOTE 2.—The under

Name of

No. of Owners

Name, Residence,

The Wyr

Manage

Dated 1 Aug

(830) (6:862) Wt. 289 (81762) 20



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