

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 7359

Port of Belfast Date of First Survey 19th Feb^y Date of Last Survey 8th April No. of Visits 11
 No. in on the Iron or Steel T.S.S. "Star of England" Port belonging to Belfast, London
 Reg. Book Belfast Built at Belfast By whom Workman Clark & Co. Ltd. When built 1914
 Owners Commonwealth & Dominion Line L^{td} (J. P. Gerry & Sons) Owners' Address London
 Yard No. 329 Electric Light Installation fitted by Sunderland Forge & Eng. Co. Ltd. When fitted 1914

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 Multipolar Pallion dynamos coupled to Workman Clark & Co.'s Ltd open type engines.

Capacity of Dynamo 280 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed in thrust recess Whether single or double wire system is used double
 Position of Main Switch Board new dynamo having switches to groups nine circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each no auxiliary board

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-oxidisable metal tinned copper 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 all on slate & porcelain bases

Total number of lights provided for 362-8 c.p. 348-16 c.p. arranged in the following groups :-

| | | | | | | |
|---|---------------|----------------------|---------------|--|---|---------|
| A | 108 | lights each of | 16 | candle power requiring a total current of | 63.3 | Amperes |
| B | 68 | lights each of | 16 | candle power requiring a total current of | 40.8 | Amperes |
| C | 53 | lights each of | 16 | candle power requiring a total current of | 31.8 | Amperes |
| D | 121 | lights each of | 16 | candle power requiring a total current of | 72.6 | Amperes |
| E | Wireless tel. | lights each of | ----- | candle power requiring a total current of | 30 | Amperes |
| | 2 | Mast head light with | lamps each of | 32 | candle power requiring a total current of | 2.4 |
| | 2 | Side light with | lamps each of | 32 | candle power requiring a total current of | 2.4 |
| | 15 | Cargo lights of | 80 | 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 in wheelhouse

DESCRIPTION OF CABLES.

Main cable carrying 260 Amperes, comprised of 37 wires, each .112" S.W.G. diameter, .35sq" square inches total sectional area
 Branch cables carrying 63.3 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .060 square inches total sectional area
 Branch cables carrying 31.8 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 7 wires, each 25 S.W.G. diameter, .0022sq" square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 114 wires, each 38sq" S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

insulated with fine rubber vulcanised rubber, taped lead covered and braided or lead covered armoured and braided where required. Insulation resistance 2.500 megohm

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 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

How are the cables led through the ship, and how protected clipped up with galvanised iron clips and then cased in with burnitised wood

F. 42-8 c.p. lamp.)

G. 110-8 ")

H. 110-8 ")

J. " ")

These are not fitted mains and fuse boxes laid in for them only.

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Yes in tween decks

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered and braided cables used in these places.

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

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

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

How are cables carried through beams in holes bushed with fibre through bulkheads, &c. W.T. Glands

How are cables carried through decks in galvanised iron deck 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 Clipped on wood grounds and boxed over.

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 in cast iron boxes.

Where are the main switches and fuses for these lights fitted in engine room

If in the spaces, how are they specially protected with cast iron covers.

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 2., and with an amperemeter yes 2., fixed on switchboard

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.

P. PRO THE BUILDER AND FORGE & ENGINEERING CO. LTD

[Signature] Electrical Engineers Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass 290 feet

Distance between dynamo or electric motors and steering compass 285 feet

The nearest cables to the compasses are as follows:—

| | | | | | | |
|------------------|----|---------|-----|----------------------------|-----|----------------------------|
| A cable carrying | 30 | Amperes | 115 | feet from standard compass | 100 | feet from steering compass |
| A cable carrying | 10 | Amperes | 16 | feet from standard compass | 6 | feet from steering compass |
| A cable carrying | 1 | Amperes | 10 | feet from standard compass | 6 | 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 none degrees on all course in the case of the standard compass and none degrees on all course in the case of the steering compass.

CLARK & CO., LIMITED

[Signature] Builder's Signature. Date 10th April 1914

GENERAL REMARKS.

This installation is of good description, and has been fitted in accordance with the Rules

It is submitted that this vessel is eligible for THE RECORD. Elec. light-

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

Committee's Minute TUE. APR. 21. 1914

YES

These particulars
Signal Letters (if any)

Official Number

136,66

No., Date, and Port of F
Whether British or Foreign Built.

British

Number of Decks
Number of Masts
Rigged ...
Stern ...
Build ...
Galleries ...
Head ...
Framework and description of vessel ...
Number of Bulkheads
Number of water ballast tanks and their capacity in ...

Total to quarter the depth from ... to bottom of keel ...

No. of sets of Engines. Description of Engines.

Two Vertical, in direct action, surface condensing, triple expansion
No. of Shafts. Particulars of Boilers
Two Description of material, Number of tubes, Iron or Steel, Loaded Pressure

Gross

Under Tonnage Deck
Space or spaces between ...
Forecastle ...
Bridge space ...
Poop ...
Side Houses ...
Deck Houses ...
Chart House ...
Spaces for machinery, Section 78 (2) of the 1894 ...
Excess of Hatchways

Gross Tonnage
Deductions, as per Convention
Registered Tonnage

NOTE 1.—The tonnage of the Deck for propulsion
NOTE 2.—The undermentioned

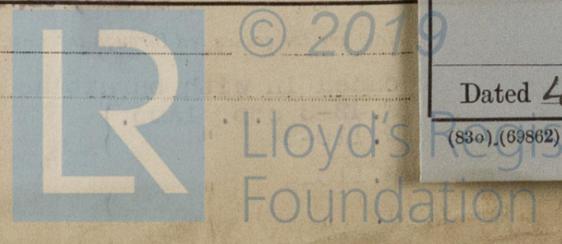
Passage under Tween Decks from Below Tonnage From aft Bulkhead

Name of Master

No. of Owners
Name, Residence, and occupation of business at
Managers:

Dated 4th of

(830), (69862) W.L. 28981/7



Im. 3. 12.—Transfer.