

No. 27294

No. in Reg. Book 1364 on the Iron or Steel St. Wulsty Castle Port belonging to Liverpool
Built at Sunderland By whom John Blumer & Co. When built 1918.

Turbo-Generator

Capacity of Dynamo 166 Amperes at 60 Volts, whether continuous or alternating current Continuous
Where is Dynamo fixed In Engine Room Whether single or double wire system is used Double

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 152 arranged in the following groups:—

A 30 lights each of 16 candle power requiring a total current of 10 Amperes

B 29 lights each of 16 candle power requiring a total current of 10 Amperes

C 33 lights each of 16 candle power requiring a total current of 11 Amperes

D 30 lights each of 16 candle power requiring a total current of 10 Amperes

E _____ lights each of _____ candle power requiring a total current of _____ Amperes

3 Mast head light with 32 lamps each of 32 candle power requiring a total current of 3.3 Amperes

2 Side light with 1 lamp each of 32 candle power requiring a total current of 2.2 Amperes

5 Cluster Cargo lights of 5-16 cp. each candle power, whether incandescent or arc lights Incandescent

If arc lights, what protection is provided against fire, sparks, &c. No arcs fitted

Three 500 Watt Half-watt lamps fitted in engine room

Where are the switches controlling the masthead and side lights placed. In Wheel house on Bridge

Main cable carrying 166 Amperes comprised of 34 wires each 13 S W G diameter .25 square inches total sectional area

Branch cables carrying 25 Amperes, comprised of 7 wires, each 18 S. W. G. diameter. $\therefore 0/25$ square inches total sectional area

Branch cables carrying // Amperes, comprised of 7 wires, each 20 S.W.G. diameter. .007 square inches total sectional area

Leads to lamps carrying $\frac{3}{4}$ to $1\frac{1}{2}$ Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying $5\frac{1}{2}$ Amperes, comprised of 7 wires, each 22 S.W.G. diameter, .0042 square inches total sectional area

Cables covered with V.I.R. Taped. Lead Covered and in exposed places

armoured with galv. steel wire or carried in tube where necessary

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

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Are all the joints of cables and stayings galvanized, and the pins used not containing acids or other corrosive substances

positions, none being made in corners, large spaces, or spaces which may at any time be used for carrying cargo, etc., or baggage.

Are there any joints in it? (I answered, "No, and the cable loading) from dynamic to static between about 120.

How are the cables you through the ship, and how protected
 a little to the ship.

11/11/11 Lloyd's

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 Lead covered and armoured or in tube as found necessary.

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 Lead & Fibre Bushes through bulkheads, &c. Watertight Glands

How are cables carried through decks Watertight steel deck 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 Yes

If so, how are they protected Lead covered & armoured

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

If so, how are the lamp fittings and cable terminals specially protected Heavy cast-iron boxes & guards.

Where are the main switches and fuses for these lights fitted In the 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 To Watertight Box Connectors

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 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 600 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.

H. T. Borthwick & Co. Limited,
J. Whitehead,

Electrical Engineers

Date 14 June 18.

COMPASSES.

Distance between dynamo or electric motors and standard compass About 92 feet

Distance between dynamo or electric motors and steering compass " 88 "

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>In Instrument</u>	<u>In Instrument</u>	
<u>1 1/4</u>	<u>6</u>	<u>6</u>	
<u>5</u>	<u>12</u>	<u>9</u>	

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 any course in the case of the standard compass and nil degrees on any course in the case of the steering compass.

John Blumer & Co.

Builder's Signature.

Date 20 June 1918

GENERAL REMARKS.

The installation has been satisfactorily fitted in the vessel, tested at full load and found good.

It is submitted that
this vessel is eligible for
THE RECORD. ELEC. LIGHT

5-9-18

Sh Davis.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.