

## REPORT ON ELECTRIC LIGHTING INSTALLATION.

Received at London Office

19

No. 8198

Port of Gelfast Date of First Survey 2nd July 1919 Date of Last Survey 23rd August 1919 No. of Visits 7  
 No. in on the Iron or Steel P.D. New Mexico Port belonging to Liverpool  
 Reg. Book Gelfast By whom Harland & Wolff L<sup>ds</sup> When built 1919  
 Owners Peter Dempster & Co L<sup>ds</sup> Owners' Address Liverpool  
 Card No. 557 Electric Light Installation fitted by Harland & Wolff L<sup>ds</sup> When fitted 1919

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

enclosed forced lubrication Single Cylinder Engine & Dynamo with  
 under 5 1/2 x 5 Stroke, Speed 520 R.P.M.  
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed in Engine Room Whether single or double wire system is used Double  
 Position of Main Switch Board in Engine Room 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                     

at 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  
 Isel 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  
 The cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current  
 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  
 switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes  
 Number of lights provided for 171 arranged in the following groups:—

illumination	5 lights each of 32 C.P. & 5 lbs of 78	candle power requiring a total current of	9.1	Amperes
in & Crew	97 lights each of 16 C.P. & 2 " 16	candle power requiring a total current of	19.4	Amperes
ine 6 Boilers	32 lights each of 27 C.P.	candle power requiring a total current of	3.6	Amperes
argo	30 lights each of 16 C.P. & 2 lbs of 1000	candle power requiring a total current of	20.1	Amperes
ireless	lights each of	candle power requiring a total current of	15.0	Amperes
Mast head light with	1 lamp each of	candle power requiring a total current of	2.4	Amperes
2 Side light with	lamps each of	candle power requiring a total current of	2.4	Amperes
5 Cargo lights of	2 1/2 WATT	candle power, whether incandescent or are lights	incandescent	
hts, what protection is provided against fire, sparks, &c.	96 1000 C.P. each	" " " "	incandescent	

the switches controlling the masthead and side lights placed In Wheelhouse

## ION OF CABLES.

carrying	23.1	Amperes, comprised of	7	wires, each	16	L.S.G. diameter, .02201	square inches total sectional area
es carrying	2.5	Amperes, comprised of	1	wires, each	14	L.S.G. diameter, .005	square inches total sectional area
es carrying		Amperes, comprised of		wires, each		L.S.G. diameter,	square inches total sectional area
ps carrying	1.8	Amperes, comprised of	1	wires, each	17	L.S.G. diameter, .00246	square inches total sectional area
bles carrying	2.5	Amperes, comprised of	90	wires, each	36	L.S.G. diameter, .00407	square inches total sectional area

## ON OF INSULATION, PROTECTION, ETC.

branch wiring exposed are 600 megohm C.M.A. Grade vulcanised  
 rubber armoured & white braided also 1/17 A.P. 254 lead covered cable  
 how made, insulated, and protected Joints made in W.I. junction boxes on decks &  
junction boxes with iron protecting cover in Engine Room  
 of cables thoroughly soldered, resin only having been used as a flux yes Are all joints in accessible positions, none being  
 inkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage yes  
 in or branches from the cable leading from dynamo to main switch board no  
 les led through the ship, and how protected Cables clipped direct to bulkhead & protected by  
& braiding in Eng. Rm. Galley & Crews Quarters & lead covered in accom.

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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 in piping

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

What special protection has been provided for the cables near boiler casings Armoured & braided cables

What special protection has been provided for the cables in engine room Armoured & braided cables

How are cables carried through beams Beams lashed with lead or fibre through bulkheads, &c. In glands if W.T. otherwise lead or fibre

How are cables carried through decks In iron deck pipes, lashed or with glands

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

If so, how are they protected Armoured & braided cable in galvanised iron tube

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 ~~~~~

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 no

Cargo light cables, whether portable or permanently fixed Permanently

How fixed Armoured & braided cable clipped to Bulkhead

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 ~~~~~

The installation is ~~~~~ supplied with a voltmeter and ~~~~~ an amperemeter, fixed on Subd. in Eng. Rm.

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 copper used is guaranteed to have a conductivity of 100 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass 104 ft. from Dynamo 14 ft. from Wireless Rotary

Distance between dynamo or electric motors and steering compass 109 ft. " 17 ft. " " "

The nearest cables to the compasses are as follows:—

A cable carrying 6.0 Amperes 10 feet from standard compass 5 feet from steering compass

A cable carrying 15.0 Amperes 26 feet from standard compass 22 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 all course in the case of the

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

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FOR HARLAND & WOLFE LTD.

Builder's Signature. Date

GENERAL REMARKS.

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

It is submitted that

this vessel is eligible for

THE RECORD.

Elec. light.

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8/9/19

R. F. Benenidge

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

Committee's Minute

FRID SEP 12 1919

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.