

JAN. 11 1923

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 76296

Port of NEWCASTLE ON TYNE Date of First Survey 26/4/22 Date of Last Survey 15/11/22 No. of Visits 4
 No. in on the Iron or Steel Rallus Port belonging to London
 Reg. Book 39136 Built at Sunderland By whom Swan Hunter & Wigham Richardson When built 1922
 Owners Cork S. S. Co Ltd Owners' Address
 Yard No. 1167 Electric Light Installation fitted by J. H. Holmes & Co. Newcastle When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo multipolar compound wound coupled direct to a single cylinder open type steam engine (Rohy)

Capacity of Dynamo 63 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed engine room at side bottom platform Whether single or double wire system is used double

Position of Main Switch Board on bulkhead of engine store having switches to groups A. B. C. D. E. F. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 3-way 10 B in saloon pantry, 8-way 10 B in charthouse, 6-way 5 B in engine room, 4-way 5 B in engine room, 5-way 10 B in 2nd engine cabin, 2-way 10 B in steering gear, 6-way 10 B in engine room

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 137 arranged in the following groups:—

A	21	lights each of 17-16cp, 4-32	candle power requiring a total current of	14.0	Amperes
B	4	lights each of 36-16cp, 4-32	candle power requiring a total current of	25.64	Amperes
C	27	lights each of 2-32, 24-16cp, 1-100W	candle power requiring a total current of	15.82	Amperes
D	28	lights each of 16	candle power requiring a total current of	16.68	Amperes
E	28	lights each of 14-16cp, 6-60W	candle power requiring a total current of	11.44	Amperes
F	2	Wireless			
	2	Mast head light with 1 lamps each of 32	candle power requiring a total current of	2.24	Amperes
	2	Side light with 1 lamps each of 32	candle power requiring a total current of	2.24	Amperes
		Cargo lights of 2 of 100 watt half watt, 10 each 6-16cp, 3 " 2-16cp	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 charthouse.

DESCRIPTION OF CABLES.

Main cable carrying 63 Amperes, comprised of 19 wires, each .064 S.W.G. diameter, .06 square inches total sectional area

Branch cables carrying 14.0 Amperes, comprised of 7 wires, each .044 S.W.G. diameter, .01 square inches total sectional area

Branch cables carrying 25.64 Amperes, comprised of 7 wires, each .064 S.W.G. diameter, .0225 square inches total sectional area

Leads to lamps carrying .56 Amperes, comprised of 1 wires, each .044 S.W.G. diameter, .0015 square inches total sectional area

Cargo light cables carrying 6.7 Amperes, comprised of 3 wires, each .036 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main cables & cables in engine room are V.I. R & armoured braided over. Lighting in engine room are V.I. R cables in conduit (iron pipe).

Joints in cables, how made, insulated, and protected home made.

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 bunkers, 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 no

How are the cables led through the ship, and how protected cables lead through conduit clipped to underside of girders & beams.



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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 V.I. R in conduit

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat V.I. R cables in conduit

What special protection has been provided for the cables near boiler casings no

What special protection has been provided for the cables in engine room no

How are cables carried through beams fiber bushes through bulkheads, &c. watertight glands

How are cables carried through decks iron deck tubes watertight

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 V.I. R in conduit

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 fuses for these lights fitted —

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 flexible from watertight sockets How fixed 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 —

Is the installation supplied with a voltmeter yes, and with an amperemeter yes, fixed main 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.

[Signature] *[Signature]*

Electrical Engineers

Date May 5th 1922.

COMPASSES.

Distance between dynamo or electric motors and standard compass 86 feet

Distance between dynamo or electric motors and steering compass 82 feet.

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
.56	on the	4	feet from steering compass
.56	4	on the	feet from steering compass
8.96	10	12' 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 nil degrees on each course in the case of the standard compass and nil degrees on each course in the case of the steering compass.

[Signature]

Builder's Signature. Date 9 January 1923.

GENERAL REMARKS.

The above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation blue light. wireless

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

£7.0.0 applied for 3/1/23. Paid 8/1/23.

[Signature] W.T. Badger.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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