

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 27655

Port of Hull Date of First Survey 27.5.14 Date of Last Survey 10-6-14 No. of Visits 8
 No. in Reg. Book on the Steel S.S. Destro Port belonging to Hull
 Built at Hull By whom Carlis Co. Ltd When built 1914-6
 Owners J. Wilson Sons & Co. Ltd Owners' Address
 Yard No. 606 Electric Light Installation fitted by J. Wilson Sons & Co. Ltd When fitted 1914-6

DESCRIPTION OF DYNAMO, ENGINE, ETC.

High pressure Robey engine, enclosed type, coupled direct to Hobson's compound wound dynamo

Capacity of Dynamo 55 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed in Engine Room bottom flt. Whether single or double wire system is used double

Position of Main Switch Board near dynamo having switches to groups Five groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Chart-Room, Pantry, Engine room alley way, + Aft. with switches as required.

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 88 arranged in the following groups:—

A	Engine Room	19	lights each of	16	candle power requiring a total current of	10.64	Amperes
B	Saloon	{ 14 3	lights each of	{ 16 4 }	candle power requiring a total current of	12.88	Amperes
C	Cabinets	15	lights each of	32	candle power requiring a total current of	8.4	Amperes
D	Aft	8	lights each of	16	candle power requiring a total current of	4.48	Amperes
E	Cargo	25	lights each of	16	candle power requiring a total current of	14.0	Amperes
1	Mast head light with <u>one</u> lamps each of	32	candle power requiring a total current of	7	included in		Amperes
2	Side light with <u>one</u> lamps each of	32	candle power requiring a total current of	Saloon			Amperes
	<u>4 clusters + one</u> Cargo lights of	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 in chart-room

DESCRIPTION OF CABLES.

Main cable carrying 55 Amperes, comprised of 7 wires, each 14 S.W.G. diameter, .036 square inches total sectional area

Branch cables carrying 14 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area

Branch cables carrying 12.88 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area

Leads to lamps carrying 36 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .018 square inches total sectional area

Cargo light cables carrying 3.36 Amperes, comprised of 70 wires, each 36 S.W.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

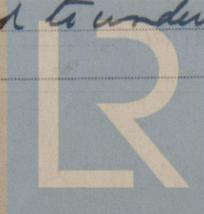
Rubber covered, taped, lead covered, taped & armoured.

Joints in cables, how made, insulated, and protected none except mechanical ones in proper junction boxes

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 no

How are the cables led through the ship, and how protected through beams clipped to underside of deck with wrought-iron clips



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

27655

Are they in places always accessible no

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered & armoured

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead covered & armoured

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

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

How are cables carried through beams Lead bushes except where armoured through bulkheads, &c. Water tight-plant

How are cables carried through decks wrought-iron pipes abt 18" high ends closed

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 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 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 on 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 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 THOS. WILSON, SONS & CO. LTD.

W. S. Hill Electrical Engineers

Date 22nd June 1914

COMPASSES.

Distance between dynamo or electric motors and standard compass about 90 ft

Distance between dynamo or electric motors and steering compass about 100 ft

The nearest cables to the compasses are as follows:—

A cable carrying	<u>448</u>	Amperes	<u>6</u>	feet from standard compass	<u>12</u>	feet from steering compass
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 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.

R. B. Downes

Builder's Signature Date 22nd June 1914

GENERAL REMARKS.

This vessel has been fitted, under special survey, with an electric light installation as above, the workmanship is good, on completion it was tested under full working conditions & found satisfactory

It is submitted that this vessel is eligible for THE RECORD. Elec. light. SW 27/1/14 Frank A. Sturgeon Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Imp. 11.13.—Transfer.

