

REPORT ON ELECTRIC LIGHTING INSTALLATION.

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No. 32449

Port of *Aull*Date of First Survey *24/1/21*Date of Last Survey *6/4/21*No. of Visits *6*No. in
Reg. Book

on the Iron or Steel

*S.C.K. 'RUDYARD KIPLING'*Port belonging to *Aull*

Built at

Sally

By whom

*Cochran & Sons*When built *1921*

Owners

Newington Steam Trawling Co. Ltd.

Owners' Address

Aull

Yard No.

686

Electric Light Installation fitted by

*J. G. Robinson**Aull*When fitted *Feb. 1921*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

*Robey engine direct coupled to 4 pole Compound wound dynamo.*Capacity of Dynamo *50*

Amperes at

*65*Volts, whether continuous or alternating current *Continuous*Where is Dynamo fixed *Side Engine Room*Whether single or double wire system is used *double*Position of Main Switch Board *Side Engine Room*having switches to groups *A.B.C.D.E.* of lights, &c., as belowPositions of auxiliary switch boards and numbers of switches on each *One aft Cabin (4) One engine room & 2 plus (6) one in wheelhouse (10) one Forecastle (4)*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 *10%* per cent over the normal currentAre 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 *60* arranged in the following groups:—

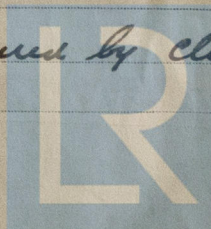
A	5	lights each of	16	candle power requiring a total current of	3	Amperes	
B	5	lights each of	16	candle power requiring a total current of	3	Amperes	
C	10	lights each of	16	candle power requiring a total current of	6	Amperes	
D	10	lights each of	16	candle power requiring a total current of	6	Amperes	
E	10	lights each of	16	candle power requiring a total current of	6	Amperes	
3	Mast head light with	1	lamps each of	32	candle power requiring a total current of	2	Amperes
2	Side light with	1	lamps each of	32	candle power requiring a total current of	1 1/2	Amperes
8	Cargo lights of		32	candle power, whether incandescent or arc lights	Incandescent		

If arc lights, what protection is provided against fire, sparks, &c. *No arcs fitted*Where are the switches controlling the masthead and side lights placed *Wheelhouse.*

DESCRIPTION OF CABLES.

Main cable carrying	36	Amperes, comprised of	19/19	wires, each	—	S.W.G. diameter,	.034	square inches total sectional area
Branch cables carrying	6	Amperes, comprised of	3	wires, each	22	S.W.G. diameter,	.0018	square inches total sectional area
Branch cables carrying	6	Amperes, comprised of	3	wires, each	22	S.W.G. diameter,	.0018	square inches total sectional area
Cables to lamps carrying	6	Amperes, comprised of	3	wires, each	22	S.W.G. diameter,	.0018	square inches total sectional area
Cargo light cables carrying	8	Amperes, comprised of	7	flex. cables, each	162/0076	S.W.G. diameter,	.0070	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Lead covered & armoured cable & lead covered in cabin space.*Joints in cables, how made, insulated, and protected *No joint, all connection in 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 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*Are the cables led through the ship, and how protected *Lead & Armoured secured by clips*

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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 *Lead & armoured*

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

What special protection has been provided for the cables near boiler casings *Lead & armoured*

What special protection has been provided for the cables in engine room *Lead & armoured*

How are cables carried through beams *Holes (armoured)* through bulkheads, &c. *Brass gland*

How are cables carried through decks *Deck pipes*

Are any cables run through coal bunkers *Yes* or cargo spaces *No* or spaces which may be used for carrying cargo, stores, or baggage ☒

If so, how are they protected *Lead & 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 ☒

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 *In switch house*

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.

Thomas S. Robinson

Hessle

Electrical Engineers

Date *April 7th 1901*

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	<i>75</i>	Amperes	<i>fitted</i>	<i>to</i>	feet from standard compass	feet from steering compass
A cable carrying		Amperes			feet from standard compass	feet from steering compass
A cable carrying	<i>75</i>	Amperes	<i>fitted</i>	<i>to</i>	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 *Nil* course in the case of the standard compass and *Nil* degrees on *Nil* course in the case of the steering compass.

D. H. Williams

Builder's Signature.

Date

13 APR 1901

GENERAL REMARKS.

The installation & workmanship are good & on completion the installation was tried under full load & found satisfactory

Green
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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