

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 31787

Name of Hull Date of First Survey 7/3/20 Date of Last Survey 20/4/20 No. of Visits 6
 in on the Iron or Steel SS "REDCAR" Port belonging to London
 Book Built at Goole By whom Goole SB & R. Co. Ltd When built 1920
 No. 251 Electric Light Installation fitted by Messrs Clarke, Chapman & Co When fitted 1920
 Owners' Address P.O. Steam Nav. Co. Ltd.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A single cylinder double acting open type vertical engine direct coupled to
 continuous current compound wound dynamo
 Capacity of Dynamo 47.6 Amperes at 105 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed In Engine Room Whether single or double wire system is used Single
 Position of Main Switch Board Near Dynamo having switches to groups A B & C of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Each light & group of lights provided
with switches as required

Are fuses 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
 Are vessels 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-oxidisable metal Yes and constructed to fuse at an excess of 50% 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 slate & porcelain

Total number of lights provided for 87 arranged in the following groups:—

Location	Number of Lights	Each of	Candle Power	Requiring a total current of	Amperes
Mast lights	59	lights each of	16	candle power requiring a total current of	33
Navigation	12	lights each of	16	candle power requiring a total current of	6.7
Engine Room	16	lights each of	16	candle power requiring a total current of	8.9
.	.	lights each of	.	candle power requiring a total current of	.
.	.	lights each of	.	candle power requiring a total current of	.
2 Mast head light with	1	lamps each of	32	candle power requiring a total current of	2.2
2 Side light with	1	lamps each of	32	candle power requiring a total current of	2.2
2 Cargo lights of			10.16	candle power, whether incandescent or arc lights	incandescent

Where are the switches controlling the masthead and side lights placed In Wheel House

DESCRIPTION OF CABLES.

Description	Capacity	Comprised of	Wires	Each	S.W.G. diameter	Total sectional area
Main cable carrying	47.6 Amperes	comprised of	7	wires, each	14	S.W.G. diameter, .035 square inches
Branch cables carrying	33 Amperes	comprised of	7	wires, each	18	S.W.G. diameter, .0125 square inches
Branch cables carrying	8.9 Amperes	comprised of	1	wires, each	14	S.W.G. diameter, .0050 square inches
Leads to lamps carrying	1.1 Amperes	comprised of	1	wires, each	18	S.W.G. diameter, .0018 square inches
Cargo light cables carrying	5.6 Amperes	comprised of	168	wires, each	38	S.W.G. diameter, .0050 square inches

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized india rubber taped & braided & lead covered where exposed steel
 Armoured cable

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

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances Yes 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 Yes.

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 Lead covered & steel armoured cables run through
hulls & clipped to underside of deck with shing galvanised iron clips



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

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 steel armoured cables

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

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 In lead bunkers through bulkheads, &c. in HT glands

How are cables carried through decks In galvanized iron deck tiles

Are any cables run through coal bunkers Yes 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 & steel armoured cables

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 to HT connection boxes

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Large brass bolts & washers

How are the returns from the lamps connected to the hull Brass screws & washers

Are all the joints with the hull in accessible positions Yes

Is the installation supplied with a voltmeter Yes and with an amperemeter Yes, fixed in hatchboards

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.

For Clarke, Chapman & Co., Ltd.

Electrical Engineers

Date June 2nd 1920

COMPASSES.

Distance between dynamo or electric motor and standard compass 66 ft

Distance between dynamo or electric motor and steering compass 60 "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
1.1	12	6	
1.1	6	12	
.	.	.	

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.

FOR THE ROOLE SHIPBUILDING & REPAIRING CO. LTD.

R. J. Lewis

Builder's Signature.

Date

GENERAL REMARKS.

The materials & workmanship are good on completion the installation was tried under full working conditions with satisfactory results.

It is pointed out that this vessel is eligible for THE RECORD Elec. Light. AWD. 7/6/20.

Stastotte

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Im. 18.—Transfer.



© 2021 Lloyd's Register Foundation