

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6703

Port of Selfport Date of First Survey July 21 Date of Last Survey Nov 6 No. of Visits 15  
 No. in Reg. Book on the Iron or Steel T.S.S. Curlew Port belonging to Selfport  
 Built at Selfport By whom Markman Clark & Co When built 1909  
 Owners Archiebald & Co. Ltd. Owners' Address London  
 Yard No. 279 Electric Light Installation fitted by Martin & Co. Glasgow When fitted 1909

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

H - Compound wound Dynamos each direct coupled to a compound double acting enclosed steam engine with forced lubrication.  
 Capacity of <sup>H</sup> Dynamos 3000 Amperes at 100 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed Dynamo Room Whether single or double wire system is used Double  
 Position of Main Switch Board Dynamo Room having switches to groups 23 Circuits of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each No Auxiliary Switchboards. Lights are connected to fuse boxes and grouped as Day, Evening, Night and Service lights. These groups are controlled from the Main Board.  
 If cut 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 ~~terminated~~ reduced in size yes and to each lamp circuit yes  
 If vessel 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  
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 50 per cent over the normal current  
 Are 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  
 Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes  
 Total number of lights provided for See Sheet arranged in the following groups:—

A	lights each of	candle power requiring a total current of	Amperes
B	lights each of	candle power requiring a total current of	Amperes
C	<u>See</u> lights each of <u>Sheet</u>	candle power requiring a total current of <u>Attached</u>	Amperes
D	lights each of	candle power requiring a total current of	Amperes
E	lights each of	candle power requiring a total current of	Amperes
<u>2</u>	Mast head light, with <u>1</u> lamps each of <u>32</u>	candle power requiring a total current of <u>2.2</u>	Amperes
<u>2</u>	Side light with <u>1</u> lamps each of <u>32</u>	candle power requiring a total current of <u>2.2</u>	Amperes
<u>18</u>	Cargo lights of <u>6</u> Lights each	candle power, whether incandescent or arc lights <u>Incandescent</u>	

If are lights, what protection is provided against fire, sparks, &c. 3 Are lamps fitted. Are enclosed in "Inner" globe and also in "Outer" lantern.  
 Where are the switches controlling the masthead and side lights placed in Wheel House.

## DESCRIPTION OF CABLES.

Main cable carrying 750 Amperes, comprised of 91 wires, each .101 L.S.G. diameter, .45 square inches total sectional area  
 Branch cables carrying 121 Amperes, comprised of 37 wires, each .15 L.S.G. diameter, .144 square inches total sectional area  
 Branch cables carrying 82 Amperes, comprised of 19 wires, each .14 L.S.G. diameter, .093 square inches total sectional area  
 Leads to lamps carrying 2.4 Amperes, comprised of 1 wires, each .16 L.S.G. diameter, .003 square inches total sectional area  
 Cargo light cables carrying 6.6 Amperes, comprised of 108 wires, each .34 L.S.G. diameter, .00036 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

H.B. Copper wire, tinned, insulated with pure & U.D. Rubber and tape, the whole vulcanised together braided & compounded.

Joints in cables, how made, insulated, and protected No joints. All connections on Terminal boxes.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux no joints 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 no joints.

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 Wires and cables enclosed in wood casing. In machinery spaces Twin Armoured wire is used.



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 Metal tubes

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Leak casing.

What special protection has been provided for the cables near boiler casings Steel Armour.

What special protection has been provided for the cables in engine room Steel Armour.

How are cables carried through beams Fibre bushes. through bulkheads, &c. W.Y. Glands.

How are cables carried through decks Metal tubes fitted watertight to decks.

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

If so, how are they protected Strong wood casing with tapered edges.

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage yes.

If so, how are the lamp fittings and cable terminals specially protected Portable metal caps.

Where are the main switches and cut outs for these lights fitted In deck above.

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 Portable How fixed Brass Terminals.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel No hull connections.

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 2 voltmeters and eleven amperemeters, fixed on Switchboard and at motors.

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 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2500 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.

W. E. Martin & Co. Electrical Engineers Date 24<sup>th</sup> Nov. 1909

COMPASSES.

Distance between dynamo or electric motors and standard compass 220

Distance between dynamo or electric motors and steering compass 230

The nearest cables to the compasses are as follows:—

Cable	Amperes	Feet from standard compass	Feet from steering compass
A cable carrying <u>10</u>	<u>9.</u>	<u>5.</u>	<u>5.</u>
A cable carrying <u>2</u>	<u>9.</u>	<u>5.</u>	<u>5.</u>
A cable carrying <u>3</u>	<u>1.</u>	<u>1.</u>	<u>1.</u>

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 courses in the case of the standard compass, and nil degrees on the same course in the case of the steering compass.

PRO WORKMAN, CLARK & CO., LIMITED,

R. P. Bennett Builder's Signature. Date 29<sup>th</sup> November 1909

GENERAL REMARKS.

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

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

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

Committee's Minute

Rpt. 9a.

Port of BELFAST. Continuation of Report No. dated on the

	Amps.	Lights	Cabin Fans	Blowers	Motors	Grids	Radiators	Are Lamps	Search Light
A Circuit	92	166	2			1			
B "	84	158	1			1			
C "	94	140	5			1			
D "	92	169	6						
E "	130	42	64				4		
F "	136	42	69			1	4		
G "	58	39	60						
H "Forward"	59	41	65						
I "Forward"	65	118							
J "aft."	40	124							
K "Forward"	69	125							
L "aft."	66	119							
M "	85.35	155							
N "	84.15	153							
O Star	25	46							
P Port	26	44							
Q Star	10	18							
R Port	10	18							
S "	69			20				3	
T "	89			13					1
U "	94				6				
V "Forward"	112				8				
W "aft."	60				3	4			
X "	180				3				
Y "	345				2				
Z "	345				2				
AA "	188				1				
AB Star	164				1				
AC Port	164				1				

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN