

S.S. "Victoria"

Sunder Pt No 6851

Circuit	Cables		Current amps	Lamps		Position of Distribution box	Branch cables			Max No of Lamps on one circuit
	No	Size Area		No	C.P		No IN Box	Size Area	amps	
Main	37	13 .246	206	368	16	Main S.B. in Eng Room	8	All A.B.C.D.E.F.G.H		
A - Fore hold	7	16 .0225	19	10 16 12 32	16	Star ally. (Fore)	6	1/18 .0018 1.12 2 1/16 .0032 2.24 2		
B - Aft hold	7	16 .0225	10.64	11 16 4 32	16	Engine Room	5	1/18 .0018 1.12 2 1/16 .0032 2.24 2		
C - 2 nd Class	19	17 .0467	40.88	43 16 30 16	16	2 nd Class Pantry	7	1/18 .0018 1.68 3		
D - Officers Rooms	7	15 .0285	22.4	40 16 32 16	16	Star Alleyway	7	do do do do do		
E - 1 st Class State Room	19	17 .0467	44.8	24 16 24 16	16	Star Alleyway (aft) Port do do	5	do do do do do		
F - 1 st Class Saloon	7	15 .0285	22.96	16 16 25 16	16	1 st Class Pantry	4	1/18 .0018 1.68 3		
G - Smoke Room	7	16 .0225	18.48	27 16 12 16	16	Smoke Room	4	" " " "		
H - Engn Room	7	18 .0127	8.96	8 32 20 16 12 16	32	Star Ally. (Fore?) Engine Room do (aft B.H.)	4 6 4	1/16 .0032 2.24 2 1/18 .0018 1.68 3 " " " "		

2/2 7410 - 804600 - 104600

Wm Morrison Lloyd's Register Foundation

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6851

Port of Dundee Date of First Survey 21st July Date of Last Survey 19th Sept No. of Visits 20
 No. in Reg. Book 218 on the ~~Iron~~ Steel S.S. "Victoria" Port belonging to Melbourne
 Built at Dundee By whom Gourlay Bros & Co When built 1902
 Owners Messrs Huddart Parker & Co Owners' Address Melbourne
 Yard No. 203 Electric Light Installation fitted by J Charters Glasgow When fitted 1902

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound, Parker's Dynamo, coupled direct to Chandler's High speed engine - Speed 476 Rev per Minute
 Capacity of Dynamo 210 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed in Engine Room
 Position of Main Switch Board Engine Room having switches to groups A-B-C-D-E-F-G+H of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each see list attached

If cut outs are fitted on main switch board to the cables of main circuit no 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 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 368 @ 16 c.p. arranged in the following groups as per list attached
 A See list attached lights each of 16 candle power requiring a total current of 5.48 Amperes
 B See list attached lights each of 16 candle power requiring a total current of 5.48 Amperes
 C See list attached lights each of 16 candle power requiring a total current of 5.48 Amperes
 D See list attached lights each of 16 candle power requiring a total current of 5.48 Amperes
 E See list attached lights each of 16 candle power requiring a total current of 5.48 Amperes
no Mast head light with 1 lamps each of 16 candle power requiring a total current of 5.48 Amperes
no Side light with 1 lamps each of 16 candle power requiring a total current of 5.48 Amperes
4 Cargo lights of eight - 16 candle power each 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 ✓

DESCRIPTION OF CABLES. see list attached

Main cable carrying 210 Amperes, comprised of 45 wires, each 30 L.S.G. diameter, 5.57 square inches total sectional area
 Branch cables carrying 45 Amperes, comprised of 45 wires, each 30 L.S.G. diameter, 5.57 square inches total sectional area
 Branch cables carrying 45 Amperes, comprised of 45 wires, each 30 L.S.G. diameter, 5.57 square inches total sectional area
 Leads to lamps carrying portable Amperes, comprised of 45 wires, each 30 L.S.G. diameter, 5.57 square inches total sectional area
 Cargo light cables carrying 45 Amperes, comprised of 45 wires, each 30 L.S.G. diameter, 5.57 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure and vulcanized india rubber; India rubber coated tape, the whole vulcanized together, strongly braided and coated with preservative compound
 Joints in cables, how made, insulated, and protected none; all junctions made at brass terminals in distributing boxes
 Are all the joints of cables thoroughly soldered; resin only having been used as a flux ✓ 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 through iron pipes in holds + stowage hold + in wood casings at all other parts



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *yes, except in holds when filled with cargo*

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *wood casings*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *iron pipes*

What special protection has been provided for the cables near boiler casings *iron pipes*

What special protection has been provided for the cables in engine room *Teak casings*

How are cables carried through beams *iron pipes and fibre* through bulkheads, &c. *Iron pipes*

How are cables carried through decks *iron pipes and fibre*

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 *iron pipes*

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 *strong iron boxes*

Where are the main switches and cut outs for these lights fitted *in engine room*

If in the spaces, how are they specially protected *not in spaces*

Are any switches or cut outs fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *portable* How fixed *to brass terminals*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *Double wire*

How are the returns from the lamps connected to the hull

Are all the joints with the hull in accessible positions

VESSELS BUILT FOR CARRYING PETROLEUM. — *not to carry 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 installation is _____ supplied with a voltmeter and *also with* an amperemeter, fixed *Main A Board*

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 *600* 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.

J. Charters Electrical Engineers Date *15 Sept 1902*

COMPASSES.

Distance between dynamo or electric motors and standard compass *91 ft*

Distance between dynamo or electric motors and steering compass *88 ft + 90 ft*

The nearest cables to the compasses are as follows:— *all double wiring*

A cable carrying <i>1.2</i> Amperes	<i>5</i> feet from standard compass	<i>5</i> 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 ~~not adjusted~~

The maximum deviation due to electric currents, etc., was found to be *nil* degrees on _____ course in the case of the standard compass and *nil* degrees on _____ course in the case of the steering compass.

Woodward Brothers & Co Builder's Signature. Date *28 Sept 1902*

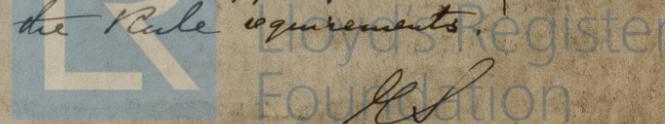
GENERAL REMARKS.

This installation has been fitted in accordance with the Rules; the materials and workmanship are sound and good and under the usual eligible in my opinion to have the notation of "Electric Light" in the Register Book

Wm Morrison
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute _____

It is submitted that this installation appears to meet the Rule requirements.



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 1.