

APPENDIX C.

EXTRACT FROM PAPER ON THE HOBART ELECTRIC TRAMWAYS, FURNISHED BY
MR. A. C. PARKER, AND LAID ON THE TABLE BY MR. R. HENRY

Routes.

- 1 From the corner of Park and Liverpool streets to Cascades Brewery, Macquarie-street.
Length, 210 chains ; average grade, 1 in 40.
One grade, 1 in 27 for 25 chains, another 1 in 20 for 10 chains.
One curve, 73 feet radius.
2. From corner of Macquarie and Murray streets to Sandy Bay
228 chains, steepest grade, 1 in 24 for 6 chains.
Three curves, 67, 70, and 80 feet radius.
3. From corner of Macquarie and Elizabeth streets to South Glenorchy
270 chains.
Grades, 1 in 16 for 6 chains, 1 in 17 for 23 chains, 1 in 20 for 4 chains, and 1 in 22 for 10 chains.
One curve of 73 feet radius.

Permanent Way.

40-lb. Vignole rails laid in pairs, joined with ordinary fish-plates, and spiked down to hardwood sleepers. A groove of $1\frac{1}{8}$ inch is allowed between the guard and running rail. Single track, with sidings, arranged for a quarter of an hour service. The whole length of one running rail is bonded throughout by copper slips riveted to the ends of each rail.

Overhead Line.

The trolley wire is of 7 m/m. steel wire, carried along the centre of the track at a height of 18 feet 6 inches by span wires of No. 8 B.W.G. steel wire, stretched from Siemens No. 8 iron poles, placed at the edge of the kerbstone on each side of the roadway at intervals of about 40 yards. The trolley wire is electrically connected by means of the span wires to feeders running on one side of the roadway, as follows:—

1 From the generating station to corner of Park and Liverpool streets, 1 wire of 7 strands 2·3 m/m. diameter bare copper wire.

2. From the generating station to Murray-street, 4 wires of 19 strands, 3 m/m.; from Murray-street along Macquarie-street for 2,090 yards, 2 feeders, 19 and 7 strands respectively ; thence for 800 yards, 1 of 19 strands ; and thence to terminus, 1 of 7 strands ; all of 2·3 m/m. bare copper wire, resistance of circuit, 1·31 ohm.

3. From Murray-street for 1,470 yards, 2 wires of 19 strands ; thence for 800 yards, 2 wires of 19 and 7 strands respectively ; thence for 1,000 yards, 1 wire of 19 strands ; and thence to terminus at Sandy Bay, 1 wire of 7 strands ; all 2·3 m/m. bare copper wire ; resistance, 1·46 ohm.

4. From corner of Macquarie and Elizabeth streets, 2 wires of 19 strands for 1,444 yards ; thence 2 wires of 19 and 7 strands for a similar distance ; thence and again for 1,444 yards, 1 wire of 19 strands ; and thence to terminus at South Glenorchy ; 1 of 7 wires all of 2·3 m/m. bare copper wire ; resistance 1·5 ohm. All feeders running parallel are electrically connected together to form one conductor.

The generating station is supplied with three of Siemens Bros. H.B. 21/36 dynamos, capable of giving an output of 250 amperes each at 500 volts, with a speed of 350 revolutions per minute, coupled direct with Willan and Robinson's engines, each of 200 horse-power. Only two generators and engines are used for the regular traffic, the third being kept in reserve.

The cars are four wheeled, double deckers, with seating for 48 persons, each car being fitted with two of Siemens Bros' $12\frac{1}{2}$ horse-power motors coupled in series.

The tramway was opened for traffic on 21st September, 1893, the ordinary service being one car starting from each terminus every quarter of an hour, or twelve in all. On special occasions when the traffic required it two or even three cars were run close together without difficulty.

The number of car miles run during the first twelve months were 351,741 miles, carrying 1,432,899 persons. General and inclusive expenses during the last six months of the year, 6·64 pence per car mile.