

Steel shoes have been found to be quite unsatisfactory. Various kinds of cast iron shoes are now being tried. Their life is ranging from 400 to 2,000 miles. The commutation of the motors is good. The control system is practically troubleless. There has been some weeding out of defects that were not discovered during the test, but the amount has been small. Two main motors and one auxiliary motor have failed. The trouble in each instance seems to have been due to defective workmanship. During the last six months there have been thirty-four delays to traffic, nine of which were chargeable to the electric locomotive. The power consumption for passenger service is averaging about thirty-eight watt hours per ton mile, and for the freight service about thirty-five watts per ton mile. Trouble with the overhead construction outside the tunnel has been limited to several lightening arrester failures and the replacement of some three or four trolley ears. In the tunnel but two insulators have failed since the commencement of the service. On one occasion the trolley wire was burnt in two through the careless resetting of the pantograph of a work train locomotive standing in the tunnel. On another occasion a box car with an extraordinary high hand brake wheel grounded the tunnel trolley. The trolley breaker cleared the trouble and no damage to the construction resulted. The wear on the trolley wire is insignificant.

The chairman has just handed me the following extract from a press article:—

Electric headlights are provided, as well as lights for the illumination of the interior of the cab and the dials of the indicating instruments. The heating of the cab is provided for by means of standard electric heaters. Heat is also available for drying sand stored in sand boxes. In general the M.C.B. standards have been conformed with in so far as couplers, wheel treads, etc., are concerned. The general dimensions of the half-units are as follows:

Length over all, 23 ft. 6 ins.

Height from top of rail to top of roof, 13 ft.

Height from top of rail to top of pantograph bow when lowered, 14 ft. 11 ins.

Width of cab over all, 9 ft. 8 ins.

Total weight of locomotive half-unit, fully equipped, 67½ tons.

(This weight is practically evenly divided over three drivers)

Weight of complete locomotive unit, 135 tons.

Length of rigid wheel base, 16 ft.

Diameter of driving wheels, 62 ins.

Normal speed of train ascending 2 per cent. grade (miles per hour) 10 miles

Normal speed on level tracks (miles per hour), 25 to 30.