

Algorithm for Detecting Step-shaped Wear on Contact Strips of a Pantograph

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Defects on pantographs may lead to serious accidents resulting in widespread damage of contact lines. Therefore, an early detection system for such defects is desired. The authors developed a method for detecting step-shaped wear on contact strips, which is one of the typical defects found on pantographs, by measuring the axial forces exerted on steady arms. Since the method only needs to measure the axial forces of steady arms, it can easily be applied to operational lines. In this paper, the principle of this method, the detection algorithm, the result of verification tests and a configuration example of the detection system are described.