

**Mechanism of Formation of Undulating Wear on Overhead Rigid Conductor Line
due to Dynamic Characteristics of a Pantograph**

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Distinct undulating wear on overhead rigid conductor line causes contact loss of a pantograph, inducing troublesome arcing. The arc causes extreme wear of contact lines and contact strips of the pantograph. However the mechanism of formation of the undulating wear has not been clarified yet. This paper makes the mechanism of the formation of the undulating wear be clear by means of on-site investigations of overhead rigid conductor lines and excitation tests of the pantograph.