

Assessment of rail long-pitch corrugation

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Abstract. The paper focuses on defects of the running surface of the rail, namely the rail corrugation defect and specifically long-pitch corrugation in curves of small radii. These defects cause a shorter life of the rails, greater maintenance costs and increase the noise and vibration pollution. Therefore, it is very important to understand the formation and development of the imperfection of the rails. In the paper, various sections of railway tracks in the Czech Republic are listed, each of them completed with comparison of defect development, the particular track superstructure, rolling stock, axle load, traffic load etc. Based on performed measurements, defect development has been proved as different on sections with similar (or even same) parameters. The paper assumes that a train velocity is the significant circumstance for defect development rates. Assessment of track section with under sleeper pads, which are expected to be the one of the possible ways to suppress the corrugation defect development, is included in evaluation.