

The New Rail Replacement Period Reflecting the Results of Bending Fatigue Test in High-Cycle Regions

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To estimate the service life of rails, it is necessary to clarify the relationship between the stress and the number of bending cycles to failure through the bending fatigue test. In the past, bending fatigue tests were conducted with higher stress level than the stress generated in the real track. In this study, we carried out bending fatigue tests under low stress level condition and estimate the service life of rails reflecting the results obtained in high cycle regions. As a result, possibility of extending the period of rail replacement is suggested.