

Experimental Study on the Prediction of Fatigue Life of Corrosion Rail

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The maintenance work on rail defects, especially rail corrosion, is very important to ensure railway safety. Cross section areas of rails at railroad crossings or tunnels were reduced with time, due to corrosion. Especially, rail of reduction of railbase could result in catastrophic failures. Clarification of the fatigue life of corrosion rail is very helpful to making up a maintenance plan. In this paper, the authors analysed the relation between S N curve and the corroded amount of railbase based on the result of fatigue test of full scale corrosion rail. Further based on the analysis result, the authors estimated the fatigue life of corrosion rail taking the corrosion amount of railbase as a parameter.