

Reinforcement Method for Inhabiting Fatigue Crack Growth on Rivet Girder Support

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Fatigue crack initiates at the lower-flange on the rivet girder support because of the stress caused by bridge member deterioration. There are cases that the fatigue crack is not able to be repaired immediately because there are many fatigue cracks and the repair of the fatigue crack requires much time and cost. In this research, we identified causes of the lower-flange stress by conducting the loading test with rivet girder and FEM analysis. Based on this result, we developed a reinforcement method for inhabiting fatigue crack growth at the lower-flange. Moreover, we verified the effect of the reinforcement method by conducting the loading test.