

## A Case Study on Tension Drop of Cable-band Bolts in Suspension Bridge

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**Abstract :** Regular maintenance works are very important on the axial forces of the cable-band bolts in suspension bridges. The band bolts show stress reduction for several reasons, including cable wire creep, the bolt relaxation, load fluctuation and cable rearrangements, etc., with time. In this study, with respect to the stress reduction that occurs over time, we carried out the theoretical review of the main cause based on the field measurements. As a result, the main cause of reduction in the cable-band bolt axial force was confirmed by the plastic deformation of the zinc plating layer used in the main cable wire, and thus, the theoretical process was established for the practical use in the field.

**Keywords :** cable-band Bolts, field test, maintenance, stress reduction

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