Evaluation Method of Load Carrying Capacity for an Existing Steel Girder End under Inappropriate Support Conditions of a Line Bearing

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The girder end is an important part to support the train and girder load and to transmit the load to the substructure. On the other hand, the bearing under the girder end often suffer the various damage. The lean or slide of a substructure due to an earthquake or a flood, makes the support conditions of the line bearing inappropriate. Since such inappropriate support conditions cause the stress of the girder end which isn't considered in the design, the load carrying capacity of the girder end could be decreased. In this study, the load carrying capacity and the buckling behavior under the inappropriate support conditions of the line bearing were evaluated by conducting a loading experiment with the full scale specimens of a rivet deck girder.