The Influence of the Details of Reinforcement Arrangement on Deformation Performance of Reinforcement Concrete Members

Toshiya TADOKORO Yuki NAKATA Yukihiro TANIMURA

In the design of RC members, the reinforcement arrangement method is specified as a part of structural reinforcement details, because it is a precondition for application of design method. However when the reinforcement arrangement method is applied to the members of small sections, it is difficult for the method to be applied properly, because it is proposed for the members of comparatively large sections. So in this study, we carried out loading tests and analysis for the specimens of various reinforcement arrangements, such as various diameters and spacing of reinforcement. Then we made clear the influence of the details of reinforcement arrangement on deformation performance of RC members. Moreover we proposed a reasonable reinforcement arrangement method from the aspect of the buckling of reinforcement bars based on the mechanical theory.