

[1]李凤霞,布欣,王新武.单调荷载作用下顶底角钢梁柱连接的受力性能[J].自然灾害学报,2010,03:67-71.

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## 单调荷载作用下顶底角钢梁柱连接的受力性能

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Title: Stressed behavior of top-seat angle steel beam-column connection under monotonic loading

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关键词: [顶底角钢](#); [非线性分析](#); [单调荷载](#); [预紧力](#)

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摘要: 运用ANSYS有限元软件,建立了顶底角钢梁柱连接节点的三维有限元模型,并对模型进行了非线性有限元分析,得到了顶底角钢梁柱连接节点的承载力和极限变形状态;深入分析了高强螺栓预紧力以及角钢与梁、柱间的接触压力等节点组件之间的力学特性,获得了试验难于测得的分析结果,可供工程设计参考。

Abstract: In order to study static mechanical properties of top-seat-angle steel beam-column connection,a 3D nonlinear finite element model was used to analyze the stressed behavior of top-seat-angle steel beam-column connection through the medium of finite element software ANSYS.Bearing capacity and ultimate deformation state of the top-seat angle steel beam-column connection as well as the mechanical properties which include prefastening force of high strength bolt and contact pressure between angle steel and beam/column were obtained.In which some of the result can not be obtained from test.The results can give a reference to engineering design of relative problem.

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