

论文

岩锚吊车梁轮压作用下的三维稳定性分析

隋斌, 朱维申, 李树忱

山东大学岩土与结构工程研究中心, 山东 济南 250061

摘要:

应用FLAC3D软件, 结合实际工程, 考虑混凝土、围岩和锚杆三者变形对岩锚吊车梁受力状况的影响, 计算分析了岩锚吊车梁及附近围岩在运行期轮压作用下的工作性态和稳定性, 分析了岩锚吊车梁锚杆的受力情况以及吊车梁与岩壁接触面的稳定性, 论证了三维有限差分方法用于研究水电站地下厂房岩锚吊车梁的合理性.

关键词: 岩锚吊车梁 轮压 接触面 锚杆 稳定性分析

Three dimensional stability analysis of the effect caused by wheel load of a rock bolt crane girder

SUI Bin,ZHU Wei-shen, LI Shu-chen

Institute of Geotechnical and Structure Engineering Research Center, School of Civil Engineering,Shandong University, Jinan 250061, China

Abstract:

Combined with the extended project practice of the underground powerhouse at some hydropower stations, the effect caused by deformation of concrete, rock mass and bolt on a rock bolt crane girder was considered, and the FLAC3D code was applied to simulate and analyze the wheel load stress state of a rock bolt crane girder on the chamber during the operational phase. The stress distribution of bolts on a crane girder and the stability of the interface between rock and crane girder were also investigated. The numerical results suggest that this can be a powerful approach to the stability analysis of a rock bolt crane girder.

Keywords: rock bolt crane girder wheel load interface bolt stability analysis

收稿日期 2007-06-27 修回日期 1900-01-01 网络版发布日期 2008-02-16

DOI:

基金项目:

通讯作者: 隋斌

作者简介:

本刊中的类似文章

Copyright 2008 by 山东大学学报(工学版)

扩展功能

本文信息

Supporting info

PDF(434KB)

[HTML全文](OKB)

参考文献[PDF]

参考文献

服务与反馈

把本文推荐给朋友

加入我的书架

加入引用管理器

引用本文

Email Alert

文章反馈

浏览反馈信息

本文关键词相关文章

▶ 岩锚吊车梁

▶ 轮压

▶ 接触面

▶ 锚杆

▶ 稳定性分析

本文作者相关文章

▶ 隋斌

▶ 朱维申

▶ 李树忱