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岩土工程地质

TBM施工隧洞围岩级别划分探讨李苍松, 谷婷, 丁建芳, 陈俊栋, 于维刚中铁西南科学研究院有限公司 成都 610031摘要:

已有不少专家在TBM施工围岩级别划分方面进行过有益探索,为后来的工作提供了很好思路。目前的问题是,所提出的分级指标难以获取、离散性较大、有一些与施工直接相关的指标的定量化问题未能解决,尚未形成明显共识的分级系统或方法。为此,有必要针对水工隧洞TBM施工围岩类别划分进行详细探讨。本文提出以现行《水利水电工程地质勘察规范》中水工隧洞围岩分级方法为基础,参考秦岭隧道TBM施工围岩分级方法,根据TBM施工的工作效率、碴料特征和涌水状况进行分级修正,建立适合于TBM施工的水工隧洞围岩分级修正模型,实现TBM施工水工隧洞的围岩分级,并以2个实例进行验证。

关键词: TBM 施工 隊洞 围岩级别

DISCUSSION ON ROCK CLASSIFICATION IN TBM CONSTRUCTION TUNNEL

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Abstract:

Useful explore researches had been done by experts on rock-classification for construction TBM tunnel, which were good idea for our later research. The current problem was no obvious consensus classification system or method for TBM

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- ▶施工
- ▶隧洞
- ▶围岩级别

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tunnel, the classification parameters were more discrete and difficult to obtain, some quantitative indicators directly related to construction were not resolved. So, it was necessary to discuss detailly on rock-classification for construction hydraulic TBM tunnel. Based on the current tunnel rock classification of hydraulic methods from Geological Survey Water Resources and Hydropower Engineering Specification, refered to the Qinling Tunnel Rock Classification TBM construction method, an amended rock classification model was given to fit for hydraulic TBM tunnel, according to these amended parameters, such as, the efficiency, muck characteristics and water inflow of the TBM construction. Then the TBM tunnel construction Hydraulic Rock Classification was Achieved, 2 Examples were provided to validate the above method.

Keywords: TBM Construction Tunnel Rock Classification

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