China mining rock drill parameters

With rampant growth and improvements in drilling technology, drilling of blast holes should no longer be viewed as an arduous sub-process in any mining or excavation process. ...

A series of drilling tests were conducted on Gonghe granites under in-situ high temperature conditions. The effect of five key parameters, including bit weight, RPM, torque, penetration ...

Corresponding to the rock mechanics and anti-drilling characteristic parameters of the drilled formation, a database of high-efficiency drill bit models for drilling in the southern ...

Rock drillability evaluation is a basic task for oil, gas, and geothermal drilling engineering design that includes bit design, bit selection, ...

By integrating the drainage parameters of CBM wells, we identified the influence of these parameters on coal fines production, uncovered the ...

The first method is by using a drilling core, and the other is by an estimation according to the stone dust produced during the drilling of the ...

BH26 Hydraulic Rock Drill is working efficiency is 5-10 times that of pneumatic one, while consuming 1/3 power of latter Drilling performance: applicable to ...

Two quantitative relationship models of energy analysis-based core drilling parameters (ECD) and rock UCS (ECD-UCS models) are established in this manuscript by the methods of regression ...

While-drilling identification technology is a crucial part of intelligent mining development. The results provide a scientific basis for real-time adjustment of support ...

A hydraulic rotary drilling rig, equipped with the DPM system, was used to conduct digital drilling tests at the tunnel face. The DPM data for the net drilling process and each sub ...

Using a self-developed digital rotary drilling system, we conducted indoor experiments on layered rock masses with varying strength grades.

Estimating rock strength parameters using operational drilling data can be a fast and reliable method. In this case, several researchers have proposed different analytical models ...

The research results can provide a theoretical basis for exploring deep-formation rock-breaking mechanisms

and optimizing the engineering parameters of percussion drilling ...

In underground mining of hard rock mines, the production processes mainly include drilling, charging, blasting, ventilation, transportation, hoisting, support and filling, as shown in ...

Percussion drilling is still widely recognized as the most effective drilling method in hard formations.6,7 In this method, the stress waves induced by the hammer force the drill bit ...

Rock bursts are an extreme behaviour in coal mine strata that can cause fatalities and severe economic losses. Pressure relief drilling is a widely used method in coal mines to ...

Digital drilling process monitoring (DPM) technique is an in-situ technique that continuously records the digital data of drilling process parameters in real time. These ...

Based on considering the stress state distribution and potential failure surface of the specimen during uniaxial compression, the drilling ...

This study provides a scientific basis for the realization of in situ rapid and effective measurement technology for the rock mechanical parameters of coal and rock mass, which is ...

Drilling and blasting play vital roles in opencast mining. These operations not only affect the cost of production directly but as well and significantly, the overall operational costs. ...

Abstract Rock drilling is widely used in various types of rock engineering. Rock boring is often used in tunneling, underground mining, and nuclear waste depository. This ...

Understanding the relations between drilling response parameters (drilling speed, axial thrust force and torque, etc.) and rock properties is useful to quickly acquire lithology ...

We plotted profiles of rock mechanics parameters of 30 wells and three dimensional (3D) drillability planes using the log data to reveal the complex formations distribution and their ...

In this study, three databases were developed for drilling parameters, tunneling parameters, and mining parameters from field and experimental measurements. The hiking optimization ...

2 Analytical model The drilling parameters, including drilling speed, thrust, rotational speed and torque, are closely related to the ...

Design of drilling and blasting parameters for hard rock mine tunnel construction by rock drilling jumbo [J]. CHINA MINING MAGAZINE, 2020, 29 (6): 117-120,126. DOI: 10.12075/j.issn.1004 ...

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In order to better apply the drilling method to underground mines, rock drillability classification and identification in situ by drilling process monitoring technology is a convenient ...

Accurate, rapid and effective analysis of rock drillability is very important for mining, civil and petroleum engineering. In this study, a method ...

Model Y20 and Y24 Hand-held Rock Drill is intended for drilling downward and inclined blast holes in medium hard and herd rock (f=8~18): · The rock drill is mainly used small quarries. ...

Different tests and standards to evaluate rock drillability have been developed worldwide. Against this backdrop, the evaluation methods and standards for rock drillability are ...

Rock drills, also known as down-the-hole drills, are a subcategory of mining machinery used for drilling holes in rock before installing explosives in blasting operations . Depending on their ...

Product Overview SHAREATE TOOLS LTD. mining tri-cone drill bit is mainly used in large open-pit mining operations, such as open-pit coal mine, copper mine, molybdenum mine, iron ore ...

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