

“The U.S. National Institute for Occupational Safety and Health (NIOSH) is conducting research on jackleg use and related accidents in underground metal mines. This ...

1. Introduction In the previous article, we experimentally investigated the performance of a hydraulic rock drill, the most common type of hydraulic rock drill currently ...

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The stress wave produced by the piston impact, on the drill rod, is an important factor affecting impact performance. It is particularly important to control the stress waveform generated by ...

The drifter is one of the main components that play a significant role in the percussion capability of the rock drill. The authors of the paper identified the operating mechanism of the drifter ...

The hydraulic rock drill is the external working mechanism of a rock drill jumbo and is the most important component for rock drilling [1]. It is ...

Discover various rock drilling methods, including rotary, percussive, and DTH techniques, for efficient drilling in construction and mining.

This paper focuses on the use of rotary-percussive drilling for hard rocks. In order to improve efficiency and reduce costs, it is essential to understand how operational parameters, ...

Percussive drilling is the most frequently used rock drilling method to drill holes in rock formations and is extensively used in mining and civil engineering applications. ...

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This paper will discuss two proven hard rock drilling techniques using (a) air roller core barrels and (b) cluster

drills to penetrate hard rock with UCS even greater than 100 MPa, which is ...

Abstract:Considering the insufficiency of numerical study on the percussion characteristic of hydraulic rock drill, which restricts the improvement of efficiency and reliability, a coupling ...

How Rock Drill Work When the rock drill is working, its internal piston will undergo high-frequency reciprocating motion, which continuously impacts the drill tail. ...

Considering the insufficiency of numerical study on the percussion characteristic of hydraulic rock drill, which restricts the improvement of efficiency and reliability, a coupling ...

Efficient drilling operations require optimal drilling parameters to achieve higher penetration rates and minimize tool wear. This study focuses on characterizing the piston ...

1 Introduction Down the hole (DTH) impactor is a kind of drilling tool used in the mining field. It uses high pressure air to push the piston to hit the rotating drill bit. When the DTH impactor is ...

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The drifter is one of the main components that play a significant role in the percussion capability of the rock drill. The authors of the paper identified the ...

Failure analysis of two hydraulic rotary drills used for rock drilling was carried out. Chemical analysis, metallurgical examination, surface fractography and hardness measurement were ...



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