

What is double damping system in hydraulic rock drill?

As a technological innovation of high-power hydraulic rock drill, double damping system has a very important effect on impact performance. The double damping system is a floating mechanism. The characteristics of the floating mechanism have an important influence on the impact energy, frequency, and power of the hydraulic rock drill.

Does QD FD affect hydraulic rock drill output power?

The effects of different the combination (Qd, Fd) on impact performance, including impact energy and frequency, are researched. These influences determine the output power of the hydraulic rock drill.

Do damping flow and feed force affect impact performance of Rock Drill?

The results show that damping flow and feed force have great influence on impact performance of the rock drill. The maximum drilling power is obtained at the combination (Qd = 8 L³/min⁻¹, Fd = 16.25 kN), while the other parameters only obtain lower drilling power.

How does hydraulic rock drill reciprocating work?

The impact piston of hydraulic rock drill reciprocating moves under the action of hydraulic oil. When it reaches the limit position of the front end, it impacts the shank and generates the incident stress wave. The incident stress wave is transmitted to the rock through the shank, drill rod, and drill bit, and the rock is broken.

Does a double damping system improve energy absorption during rock drilling?

Conclusions The floating characteristics of internal components of the double damping system are analyzed, which can better solve the problem of energy absorption during rock drilling, but also has negative effects on the utilization of impact energy. The negative effects become obvious with the increase power of rock drill.

What is hydraulic rock drill?

1. Introduction Hydraulic rock drill is widely used in mining, coal mine excavation, railway, and highway tunnel and rock excavation projects with many advantages such as high efficiency, cleanliness, and safety.

Hydraulic System: The hydraulic system of a hydraulic rock drill is a critical component, and high-quality hydraulic components can be costly. Maintaining ...

Hydraulic rock drilling is a process that involves using a hydraulic rock drilling machine to drill into rocks or soil. The machine is designed to be propelled automatically, reducing the working ...

15 Troubleshooting and Solutions for Hydraulic Rock Drill Hydraulic rock drills, critical equipment in tunneling and rock mining operations, are highly regarded ...

In response to the issues of overheating of the shell and insufficient impact energy of the hydraulic rock drill, this paper focuses on the ...

The long service life of the drilling machine for the hydraulic drill and the less consumption of the drill parts, and the low cost of drilling operation. The hydraulic drill can adjust the impact ...

Studies on the working processes of hydraulic rock drills usually consider the rock drill as a whole power output unit, analyzing the stress wave propagation, energy ...

Hanke Hydraulic hammers Manufacturing Co., Ltd. Is a joint venture. It locates in urban area of Jinhua city, Zhejiang Province with coverage of 10, 000 square meters, which specializes in ...

In 1986, Lianhuashan Drilling Tools Co., Ltd. introduced the production technology of the HYD200 hydraulic rock drill from the French company Secoma, and successfully produced the first ...

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Zhejiang Jinlun Electromechanic Co., Ltd. (Jinhua Hydraulic Turbine Works) was founded in 1958. We are the key enterprise of the National Mechanical Industrial Bureau and the manufacturing ...

Lianhuashan drilling tools give full play to their technical advantages, mass production of HYD series hydraulic rock drill accessories at the same time, expand the various imported, ...

As the core component of hydraulic rock drill, the performance parameters of impact mechanism have great influence on drilling efficiency and drilling tool life order to obtain more accurate ...

Factors that affect the drilling effectiveness of hydraulic rock drills include rock drilling speed and rock breaking effectiveness.

Jinhua Liu's 6 research works with 19 citations and 1,063 reads, including: Fully coupled two-phase hydro-mechanical model for wellbore stability analysis in tight gas formations ...

In 1920, the UK developed hydraulic rock drill. After that, many other countries developed over 100 types of hydraulic rock drills and the matching drill jumbos. China built its ...

1. Introduction Hydraulic rock drill is the development core of a modern hydraulic drill rig, which is widely used in mining, tunnel, and building industry, and its performance determined the ...

Rock drilling rigs are widely used in inclined shaft tunnels. They use the system to achieve automated control,



Jinhua hydraulic rock drill effect

which can greatly improve the efficiency and safety of tunnel ...

For the phenomenon of a hydraulic rock drill based on an overlapped reversing valve, the mechanical structure of the overlapped reversing form was ...

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Abstract In response to the issues of overheating of the shell and insufficient impact energy of the hydraulic rock drill, this paper focuses on the hydraulic rock drill with alternating front and rear ...

The high-power hydraulic rock drill improves drilling speed. With the increase of impact power, the rebound energy increases during drilling. This phenomenon seriously ...

In 2019, Jiangxi WOSERLD Hydraulic Rock Drilling Co., Ltd. was established in Pingxiang, Jiangxi Province. Over the years, WOSERLD has gradually become one of the globally ...

Hydraulic rock drill is a new type drilling equipment with high efficiency, low energy consumption and low pollution. It is widely used in metallurgical mine, roadway drivage, and ...

A system coupling model was constructed, incorporating the piston, reversing valve, cylinder, accumulator, drill rod, power source, and impact device, to analyze the dynamic ...

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Welcome to Jiangxi Siton Machinery Manufacturing Co., Ltd.! Professional underground machine manufacturer since 1992 in China! We provide provide ...

Zondar offers lightweight portable hydraulic rock drill machines for mining, construction and emergency rescue operations. High-performance handheld equipment from China manufacturer.

In 1986, Lianhuashan Drilling Tools Co., Ltd. introduced a full set of HYD200 hydraulic rock drill production technology from France Secoma Company and successfully produced China's first ...

The emergence of alternative drilling technologies, such as rotary and diamond drilling techniques, significantly influences pricing strategies adopted by hydraulic rock drill ...



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The introduction of new products enriches the enterprise hydraulic rock drill product line and meets the customer"s demand for different performance hydraulic rock drill products.

Yang et al. 8, 9 constructed a numerical model of hydraulic rock drill impact system by Amesim for front constant-pressurized chamber hydraulic rock drills, then optimized the ...

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