

Advantage:

- >> Hole range: 90-115mm
- >> Hole depth: 21m
- >> 206kW YUCHAI engine
- >> Eaton hydraulic motor(USA brand)
- >> Automatic rod handle

JC106A

DTH ROCK INTEGRATED DRILLING RIG 潜孔钻机

INTRODUCTION 产品介绍

- >> As a versatile and efficient down-the-hole drilling rig, **JC106A** is designed for shallow to medium-depth rock-drilling applications. The rig features a user-friendly operation platform and upgraded performance in both drilling force and structural stability. With a drilling depth of up to 21m and support for 90-152mm hole diameters, it excels in mining and engineering projects.
- >> The rotation system is driven by an Eaton 6K series hydraulic motor, delivering up to 3500N·m torque with smooth variable speeds of 0-120rpm. A wire-rope hydraulic cylinder feed system provides stable advance and retraction, with 12kN max feed force, 18kN pull force, a 3400mm stroke, and 1100mm extension on a lightweight yet rigid aluminum-alloy feed beam.
- >> Power comes from a 206kW YUCHAI diesel engine, perfectly matched to a two-stage compression air system that supplies 15 or 18m³/min at 20-22 bar working pressure. The rig integrates a 14-core Xuanhua dust collector and IP56-rated imported electrical components for superior waterproof and dust-proof reliability.
- >> Integrated rod storage (6+1 configuration for 3m rods), a 10.5t total weight, and tramping speeds up to 3km/h combine portability with robustness. A compact structure, reinforced feed frame, and QIANGTIAN sealed control valves minimize downtime and maintenance costs-making **JC106A** a cost-effective, professional solution for your drilling needs.

>> CHARACTERISTICS 产品特点

- >> YUCHAI 206kW turbocharged engine delivers strong power and easy maintenance, ensuring stable operation even under heavy-duty working conditions.
- >> Eaton 6K series rotary motor with 3500N·m torque output, paired with 0-120rpm rotation speed, ensures stable rock penetration and higher drilling efficiency.
- >> The feed system adopts aluminum alloy beam with wire rope and hydraulic cylinder, delivering 12kN feeding and 18kN pulling force, stroke up to 3400mm, enabling smooth and reliable drilling.
- >> 6+1 drill rod magazine supports 3m drill rods with diameter 64 or 76, reducing manual handling and improving working efficiency. Two-stage air compressor with optional 15 or 18 m³/min air consumption and 20/22 bar working pressure offers strong air supply for various geological formations.
- >> Xuanhua 14-core dust collector effectively reduces dust emission and improves operator health and environmental friendliness.
- >> Imported IP56-grade electrical components are waterproof and dustproof, ensuring stable operation in harsh mining environments.
- >> The entire rig weighs only 10.5 tons and is compact in size (8800×2300×2600mm), with two-speed walking (1.5/3 km/h) for quick site transfers.

Characteristics 产品特点

- >> Operating System: Integrated control platform at the rear enables easy observation and centralized control. Pneumatic system supports safe one-hand tramming. QIANGTIAN control valve ensures reliable operation.
- >> Power System: Equipped with a 206 kW YUCHAI engine. Matches two-stage compressor with 18 m³/min airflow and 22 bar pressure for efficient DTH drilling.
- >> Hydraulic System: Eaton 6K motor delivers 3500 N·m torque. Wire rope+ hydraulic cylinder feed system ensures stable and powerful feed with 18 kN pull force.
- >> Traveling System: Crawler-mounted chassis with dual-speed drive (up to 3 km/h), stable movement on complex terrain.
- >> Drilling System: Supports 90- 152 mm holes with 4" hammer. Automatic 6+1 rod storage (3m × 64 or 76) simplifies rod handling.
- >> Dust Control: Xuanhua 14-core dust collector and IP56-rated imported electric components provide strong dust and water protection.

Specification 技术参数

Specifications	Unit	JC106A
Drilling Specifications		
Hole Depth	m	21
Hole Diameter	mm	90 – 115 / 115 – 152
Drilling Rod Diameter	mm	76
Drilling Rod Storage		6+1 (3 m × 64) / optional 6+1 (3 m × 76)
DTH Hammer	inch	4
Drill Bit	mm	115
Rotation		
Rotation Torque	N·m	3500
Rotation Speed	rpm	0-120
Discharge Pressure	MPa	13
Rotation Motor		Eaton 6K series
Feed System		
Feed Type		Wire rope + hydraulic cylinder
Max. Feed Force	kN	12
Max. Pull Force	kN	18
Max. Feed Speed	M/s	1
Feed Beam		Aluminum alloy
Feed Stroke	mm	3400
Feed Extension	mm	1100
Engine		
Engine Brand		YUCHAI
Rated Horsepower	kW	206
Air Compressor Demand		
Air Consumption	M ³ /min	15 or 18 (Optional)
Compressor Type		Two-stage compression
Working Pressure	bar	22 or 20 (Optional)
General Specification		
Total Weight	t	10.5
Size (L×W×H)	mm	8800 × 2300 × 2600
Tramming Speed	km/h	Fast: 3 / Slow: 1.5
Control Valve		QIANGTIAN
Dust Collector		Xuanhua 14-core
Electrical System		Imported components, IP56 waterproof/ dustproof

具体参数变化以实物为准 The specific parameter changes are subject to the actual object.



Main Structure 主要结构

Power System

206 kW YUCHAI engine, 18 m³/min airflow, 22 bar pressure.

Hydraulic System

Eaton 6K motor, 3500 N·m torque, stable 18 kN feed.

Traveling System

Crawler-mounted chassis, dual-speed drive, stable on complex terrain.

Drilling System

Supports 90-152 mm holes, automatic rod storage.

Control Panel

Rear integrated control platform, easy observation, reliable valve.

Dust Control

14-core dust collector, IP56-rated electric components.



DTH Drilling Know How

Down-the-hole drilling (DTH) essentially involves a drilling hammer at the bottom of a drill string. It relies on three elements for drilling holes: bit loading (weight), rotation and air. These active elements combine to be efficient at crushing rock. As the drill string slowly rotates, the drilling hammer is forced into the rock repeatedly. Striking power is provided by compressed air driving a piston inside the hammer.

Where is it used?

DTH drilling is often used in the mining industry (blast hole drilling), on construction sites, drilling water wells, and in the oil and gas industry.

DTH advantages

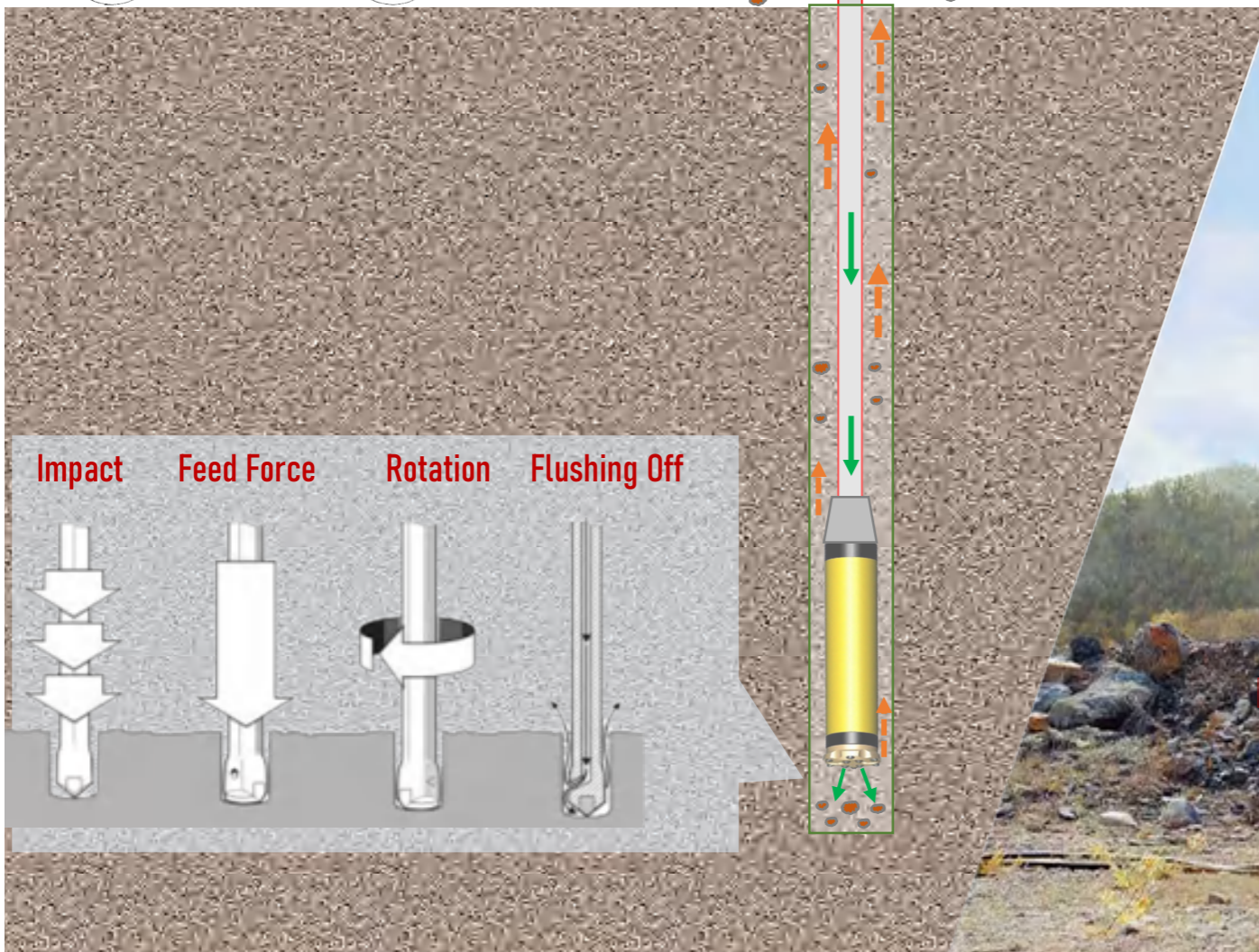
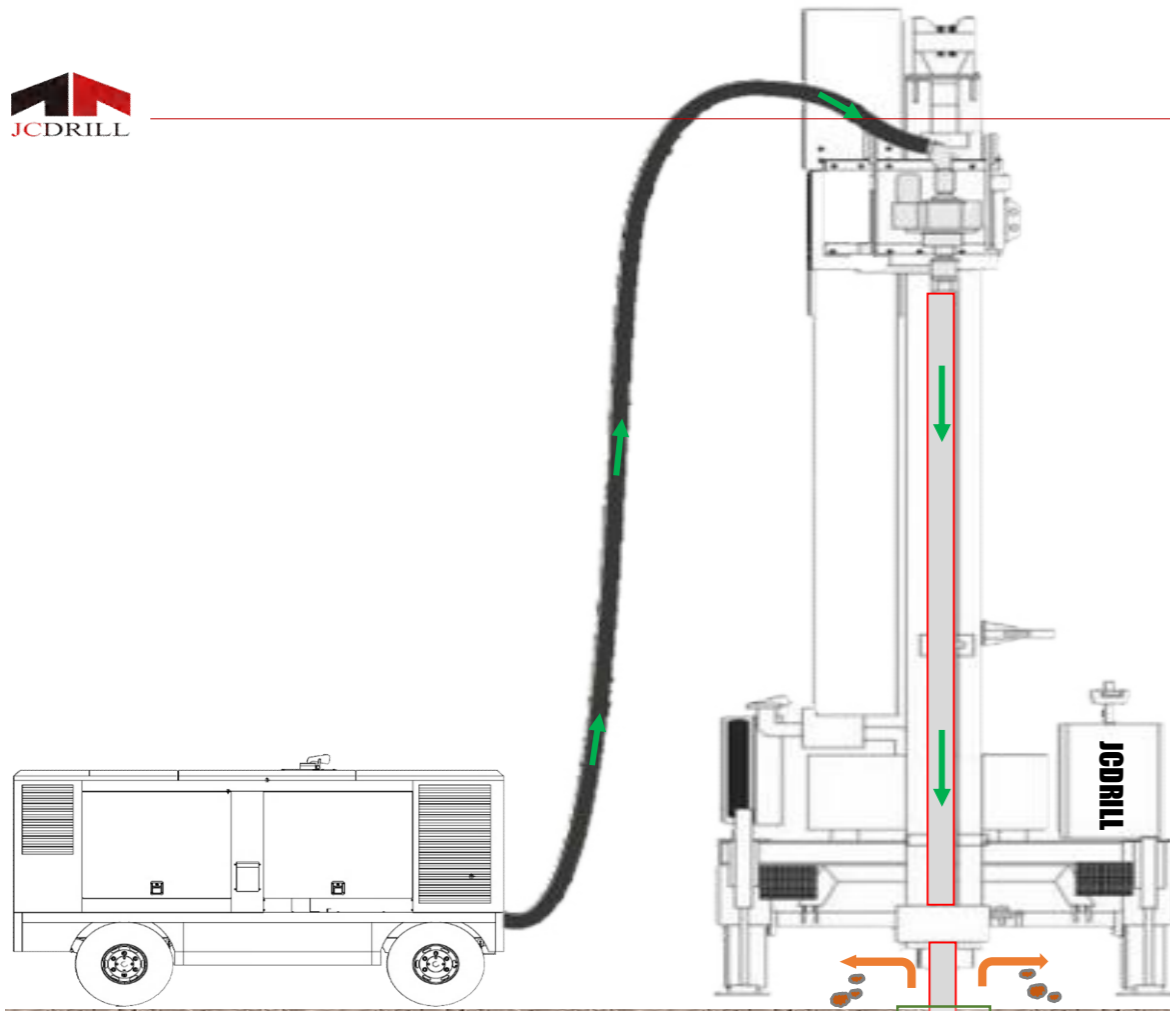
DTH drilling offers several advantages over top-hammer drilling for larger, deeper holes in medium-hard formations. Because the hammer is at the bottom of the hole, power loss is minimal as the hole deepens. That means energy is not lost in the drill string and penetration rates do not markedly decline with depth—provided that back pressure does not rise significantly in the borehole.

Compressed air power

The DTH hammer is pneumatically powered, with the compressed air propelling it forward to impact and fracture rock. Compressed air also travels through the drill bit into the hole (air exhaust), which blows the chips and dust out of the hole.

Quieter drilling

From environmental and social perspectives, DTH is a good option because it produces much less noise and vibration than many other drilling methods.





Contact Us 联系我们

BEIJING JINCHENG MINING TECHNOLOGY CO., LTD.

Add: Rm1604, Mansion 2, No.A13 Beiyuan Road, Chaoyang District, Beijing, China

Mob: 0086 13810203890

Tel: 0086 10 53681788

Fax: 0086 10 51617069

Email: sales@jcdrill.com



WEBSITE



WHATSAPP

Web: www.jcdrill.com

WhatsApp/ Viber/ Wechat: +8613810203890

