

Shandong Cresics Equipment Manufacturing Co., Ltd.

 **Shandong • Feicheng**

Professional Original Manufacturer of Mining Equipment
Reliable Partner for Global Mining Projects

China • Professional • Custom • Reliable



Company Profile

Founded in 2004, Cresics is a professional original manufacturer of mining equipment in China, specializing in the R&D and manufacturing of mining electromechanical equipment. The company's product portfolio covers mining excavation, bolting, exploration and haulage equipment, intelligent automated mining equipment, and auxiliary mining transportation equipment, providing customers with complete sets of mining equipment solutions.

Adhering to the business philosophy of technological innovation, quality first, and customer-centricity, the company has established a comprehensive quality control system covering every stage from product design, manufacturing and inspection to on-site application and after-sales service. It also provides customized design solutions based on customers' actual working conditions. Through the "Quality + Service" model, Cresics is committed to supplying safe, efficient, energy-saving and reliable mining equipment and solutions to global customers.

Our products are widely used in coal mines, non-coal mines, metal mines, tunnel engineering and other related fields. They are distributed across 32 provinces, autonomous regions and municipalities directly under the Central Government in China, supplied to more than 100 mining groups nationwide, and exported to over a dozen countries including Vietnam, India, South Africa and the Philippines, earning high respect and wide recognition from customers.



System Certification

QMS



EMS



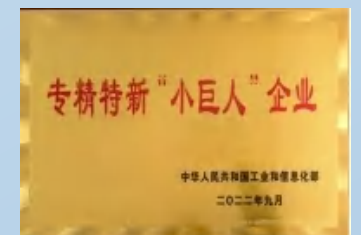
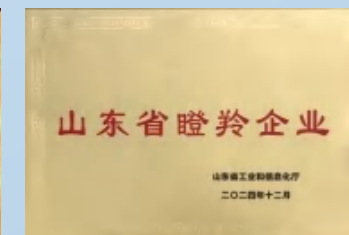
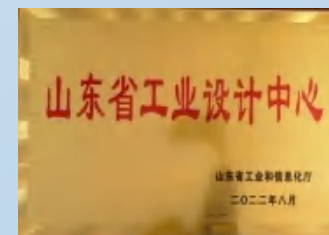
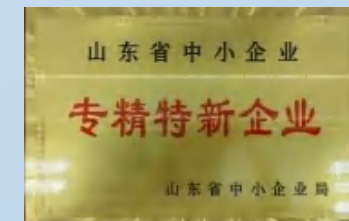
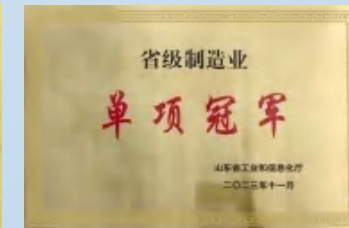
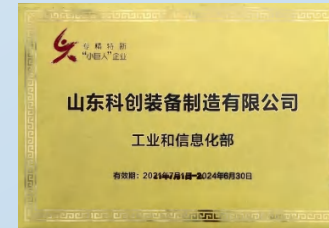
OHSMS



Enterprise Honors and Patents

Adhering to technological innovation as its core business philosophy, the company has successively been awarded honorary titles including National Specialized, Sophisticated, Unique and New "Little Giant" Enterprise, Shandong Provincial Single-Champion Enterprise, Shandong Provincial Gazelle Enterprise, Shandong Provincial Enterprise Technology Center, Shandong Provincial Industrial Design Center, National High-Tech Enterprise, and Shandong Provincial Specialized, Sophisticated, Unique and New Enterprise.

The company boasts a highly competent technical team with strong R&D capabilities and maintains extensive technical cooperation with numerous domestic universities, research institutes and mining groups. As of 2025, it has obtained more than 50 patents and over 300 MA (Coal Mine Safety) and KA (Mine Safety) certificates. It is an enterprise with strong equipment R&D strength and high reputation in the industry.



Core Strengths

★ Direct Factory Supply

As a direct source manufacturer with no middleman markup, we offer significant price advantages and stable, controllable delivery times.

★ Strong R&D Capability

We possess independent R&D and design capabilities, and can provide customized equipment solutions based on customers' on-site working conditions.

★ Strict Quality Control

Our products comply with international manufacturing standards, featuring stable performance, long service life and low operating costs.

★ One-Stop Service System

We provide a full-process service including pre-sales consultation, solution design, production and delivery, on-site installation, commissioning and after-sales support.

★ Extensive Foreign Trade Experience

Our professional foreign trade team is well-versed in international trade procedures, customs declaration, inspection and logistics arrangements.



Production & R&D Capability

1. Standardized & Modern Production Base

The company covers an area of 120,000 m², with one comprehensive office building and 13 modern production workshops. The production base adopts a modular layout with clear functions and smooth workflow connection, forming a complete closed-loop production system from raw material processing to finished product delivery.

2. Advanced Production & Processing Equipment

The company is equipped with a full-process intelligent CNC processing system, supporting integrated manufacturing of heavy forgings, core structural parts and high-precision components, ensuring high reliability and long service life of mining equipment.

3. Professional Technical & R&D Team

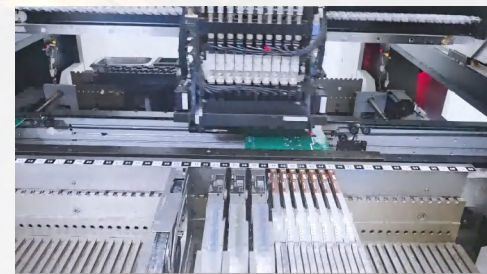
The company has a professional R&D and after-sales team of more than 100 people, accounting for about 25% of the total staff. R&D investment has remained above 8% of sales revenue in the past three years.

4. Mature Production Technology & Processing Techniques

The company possesses mature and stable production technology for mining equipment, adopting core technologies such as CNC precision machining, automated welding and standardized assembly. The whole process is standardized and controllable, ensuring stable and reliable product quality.

5. Continuous Optimization of Product Performance & Structure

Through continuous R&D and improvement, we optimize product structure and overall performance, enhance equipment reliability, energy efficiency and service life, to better meet the demands of mining operations.



Customer Training & Service

Pre-Sales Service

- On-site working condition analysis
- Professional production line design and equipment selection
- Detailed quotation and technical proposal

During-Sales Service

- Transparent production progress
- On-time delivery and safe logistics arrangement
- Warmly welcome customers to visit and inspect the factory

After-Sales Service

- Installation and commissioning guidance
- Professional training for operators
- Long-term supply of wearing parts
- Professional after-sales technical support



Application Scenarios

Mainly used for underground roadway operations in underground coal mines, metal mines, non-metal mines, rare and rare earth mines, as well as various construction operations such as tunnels.

1.Exploration and Drilling: Geological exploration drilling, blast hole drilling, bolt hole drilling;

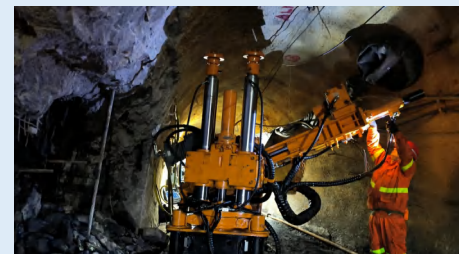
2.Crushing and Excavating: Ore crushing, hard rock excavating;

3.Loading and Mucking: Underground mucking, rock loading, slag transfer, working face cleaning;

4.Ore and Rock Transportation: Underground rail / rubber-tired transportation;

5.Roadway Support and Safety: Bolt and cable support, shotcreting, roof reinforcement;

6.Infrastructure and Tunnel Support: Construction of water conservancy tunnels, railway and highway tunnels, mine infrastructure roadways.



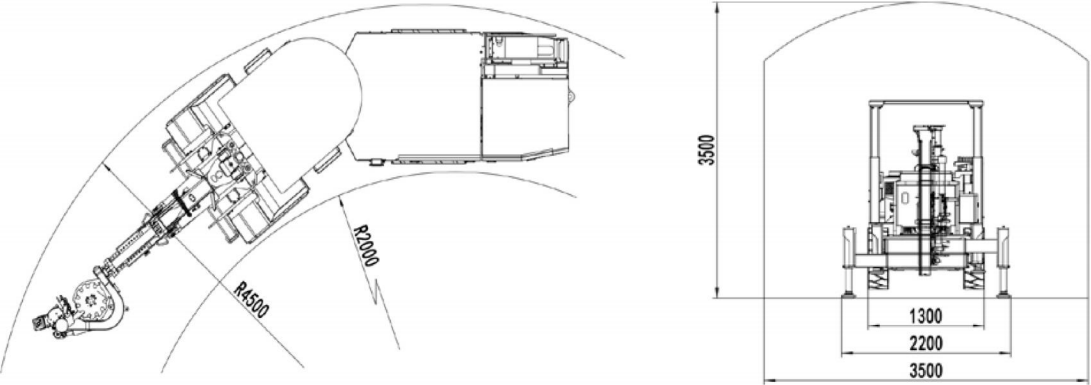


Bolting Rig

CYTM41/2

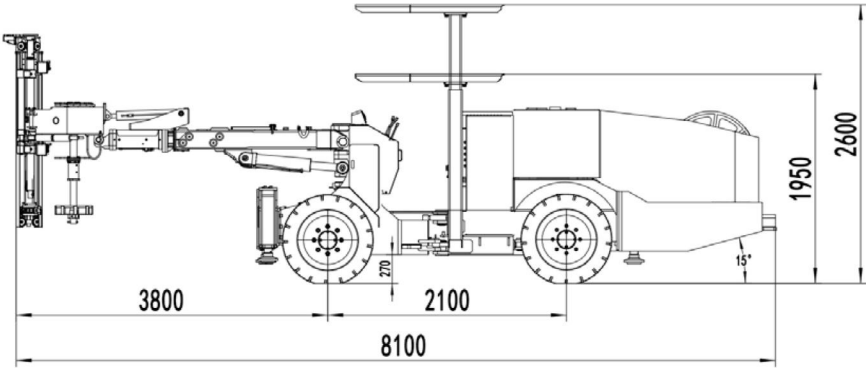


Compact rock-bolt drilling jumbo, with a 1.3m-wide body, fits sections from 2×2m to 3.5×3.5m; Its double-hydraulic rock drill enables full mechanization of drilling, anchoring, and net hanging; It features a diesel-electric power system with a 50m hydraulic auto-cable reel, uses internationally renowned core components, offers multiple safety protections, and allows optional functional modules.



Parameters

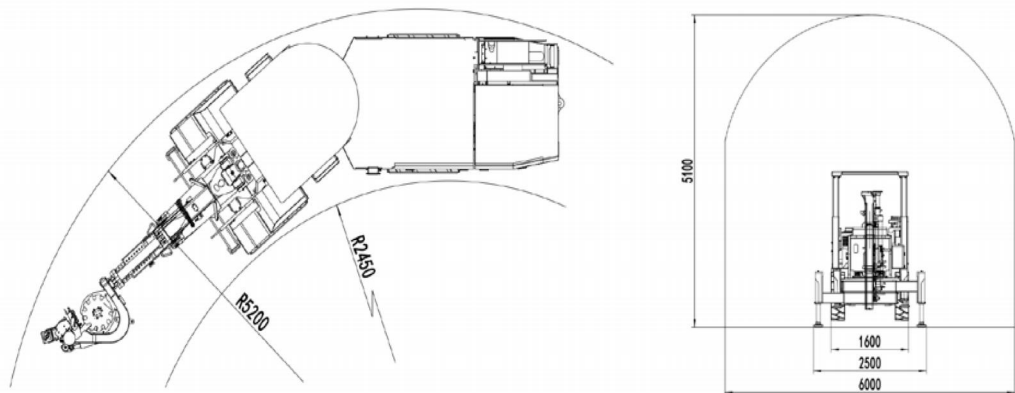
Equipment Model		CYTM41/2	
	tem	Unit	Parameter
Machine Performance	Number of Rock Drills	pcs	2
	Applicable Section (W×H)	m ²	4–10
	Transportation Dimension (L×W×H)	mm	8100*1300*1950
	Minimum Turning Radius (Inner/Outer)	mm	2000/4500
	Minimum Ground Clearance	mm	270
	Motor Power	kW	55
	Power Supply Voltage/Frequency	—	380/660V 50Hz
	Total Machine Weight	kg	10000
Anchor rod Mechanism	Anchor rod type	—	Resin bolt/ Pipe seam bolt
	Drilling Diameter	mm	32–64
	Drilling Depth	mm	2000/2200
	Anchor rod storage capacity	pcs	10
	Propulsion Drilling Speed	m/min	1–2.5
Travel Mechanism	Steering Method	—	Articulated Steering
	Steering Angle	°	38
	Travel Speed	km/h	0–10
	Rear Axle Swing Angle	°	±6° ~±8°
	Climbing Ability	°	-15° ~+15°
	Transmission Type	—	Hydrostatic Transmission
Auxiliary Working Device	Diesel Engine Power	kW	37
	Air supply pressure	MPa	0.8
	Water supply pressure	MPa	1.2
	Cable Drum Capacity	m	50
	Lighting Lamp	—	4x60w+2x100w
The vehicle is equipped with fire extinguisher, exhaust gas catalyst, angle ruler, horn, warning light, reverse alarm, car wash gun, and pneumatic lubricating grease gun			



CYTM41/2(A)

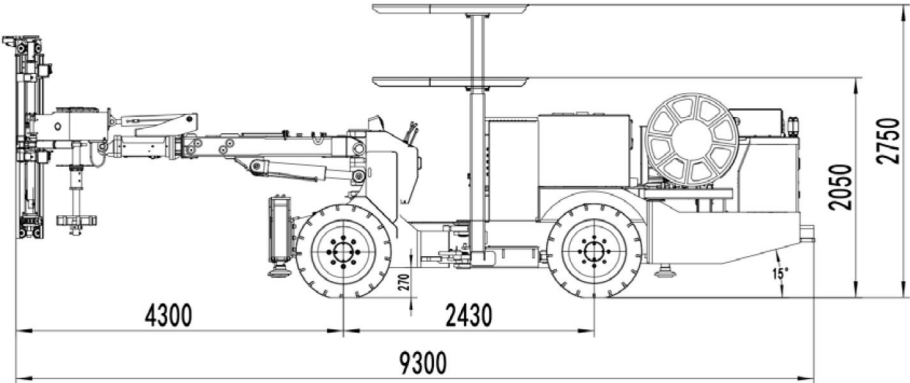


Compact support equipment for mine and underground projects with sections from 3x3m to 5.1x5.6m; Equipped with dual hydraulic drills, it completes single anchor rod work in 2.5 mins max, mechanizing drilling, anchoring, and net-hanging; Its special boom enables 360 ° support, and the 1.6m narrow body suits complex underground conditions; It uses diesel-electric power with optional functional components.



Parameters

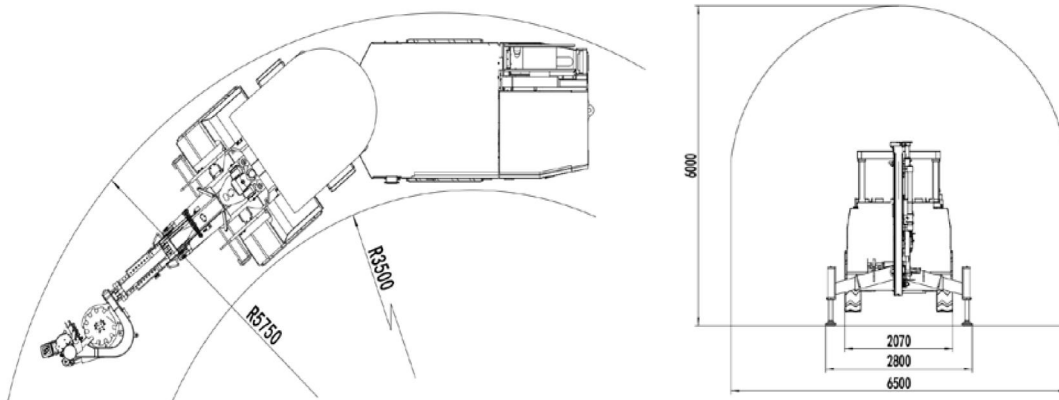
Equipment Model			CYTM41/2(A)
Item		Unit	Parameter
Machine Performance	Number of Rock Drills	pcs	2
	Applicable Section (W × H)	m²	9–30
	Transportation Dimension (L × W × H)	mm	9300*1600*2050
	Minimum Turning Radius (Inner/Outer)	mm	2450/5200
	Minimum Ground Clearance	mm	270
	Motor Power	kW	55
	Power Supply Voltage/Frequency	—	380/660V 50Hz
Anchor rod Mechanism	Total Machine Weight	kg	12800
	Anchor rod type	—	Resin bolt/ Pipe seam bolt
	Drilling Diameter	mm	32–64
	Drilling Depth	mm	2000/2200/2500
	Anchor rod storage capacity	pcs	10
Travel Mechanism	Propulsion Drilling Speed	m/min	1–2.5
	Steering Method	—	Articulated Steering
	Steering Angle	°	38
	Travel Speed	km/h	0–10
	Rear Axle Swing Angle	°	± 6° ~ ± 8°
	Climbing Ability	°	–15° ~ +15°
	Transmission Type	—	Hydrostatic Transmission
Auxiliary Working Device	Diesel Engine Power	kW	54
	Air supply pressure	MPa	0.8
	Water supply pressure	MPa	1.2
	Cable Drum Capacity	m	80
	Lighting Lamp	—	4x60w+2x100w
The vehicle is equipped with fire extinguisher, exhaust gas catalyst, angle ruler, horn, warning light, reverse alarm, car wash gun, and pneumatic lubricating grease gun			



CYTM41/2(B)

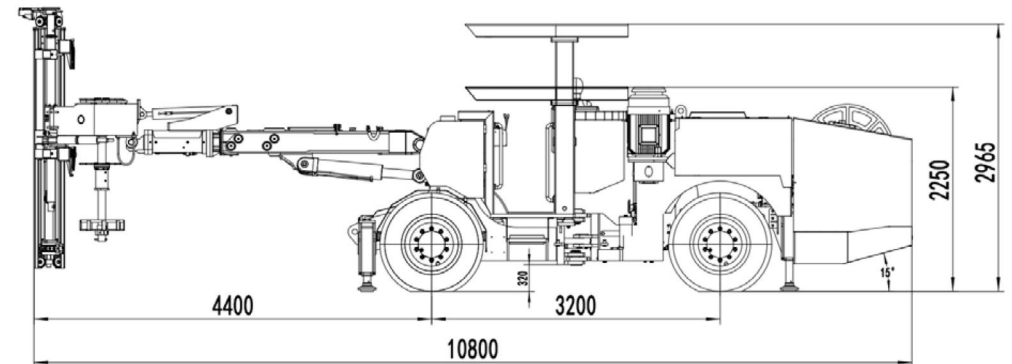


This model is high-end support equipment for roadways sized 3.5 × 3.5m to 6.5 × 6m, featuring dual hydraulic rock drills for fully mechanized drilling, anchoring, and net-hanging. Its dedicated arm enables 360° support coverage. With diesel-electric power and a microcomputer monitoring system, it offers customizable components, ensuring efficiency, stability, and comprehensive safety.



Parameters

Equipment Model			CYTM41/2(B)
	Item	Unit	Parameter
Machine Performance	Number of Rock Drills	pcs	2
	Applicable Section (W × H)	m ²	12~40
	Transportation Dimension (L × W × H)	mm	10800*2070*2250
	Minimum Turning Radius (Inner/Outer)	mm	3500/5750
	Minimum Ground Clearance	mm	320
	Motor Power	kW	55
	Power Supply Voltage/Frequency	—	380/660V 50Hz
	Total Machine Weight	kg	16500
Anchor rod Mechanism	Anchor rod type	—	Resin bolt/ Pipe seam bolt
	Drilling Diameter	mm	32~64
	Drilling Depth	mm	2000/2200/2500
	Anchor rod storage capacity	pcs	10
	Propulsion Drilling Speed	m/min	1~2.5
Travel Mechanism	Steering Method	—	铰接转向 Articulated Steering
	Steering Angle	°	38
	Travel Speed	km/h	0~15
	Rear Axle Swing Angle	°	±6° ~±8°
	Climbing Ability	°	-15° ~+15°
	Transmission Type	—	Hydraulic Transmission
	Diesel Engine Power	kW	66
Auxiliary Working Device	Air supply pressure	MPa	0.8
	Water supply pressure	MPa	1.2
	Cable Drum Capacity	m	80
	Lighting Lamp	—	8x60w+2x100w
	The vehicle is equipped with fire extinguisher, exhaust gas catalyst, angle ruler, horn, warning light, reverse alarm, car wash gun, and pneumatic lubricating grease gun		



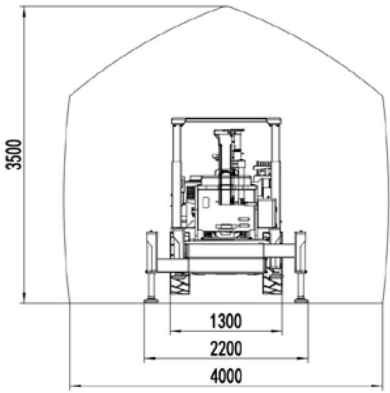
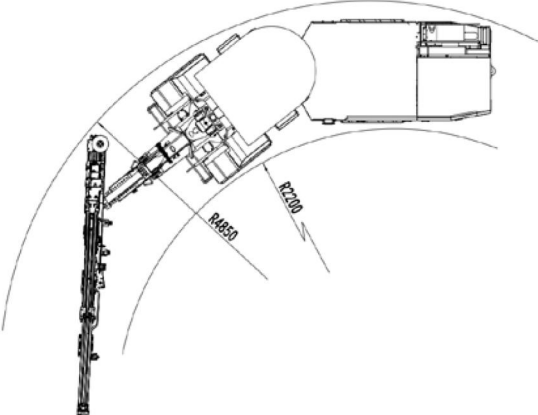


Drilling Jumbo

CYTJ45

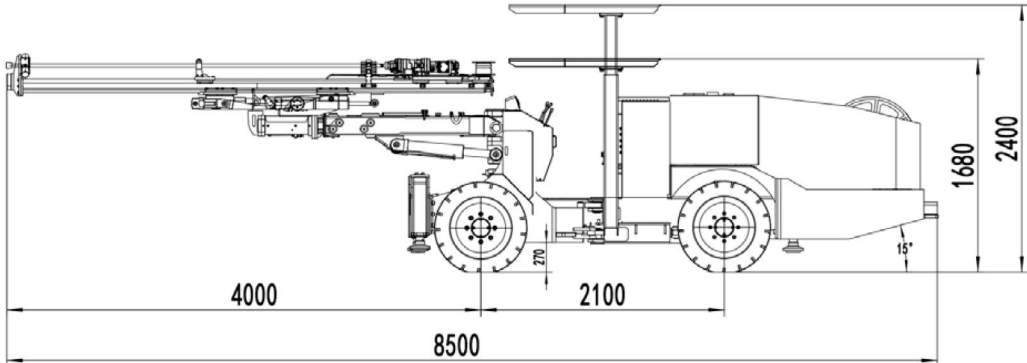


Lightweight design with a 1.3m-wide body and 8.7t total weight, fits 2×2-5×4m small roadways, minimum operation range 1.9×1.9m supports remote and intelligent electric control, widely used in underground mines, pumped storage plants, hydropower stations, and water diversion projects.



Parameters

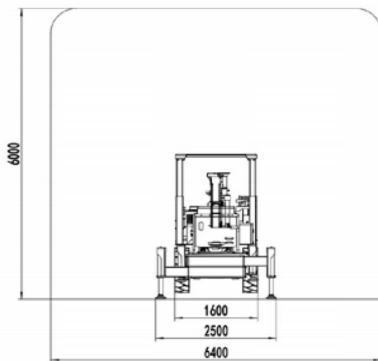
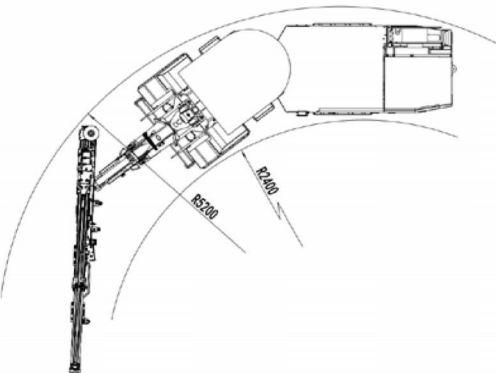
Equipment Model			CYTJ45
	Item	Unit	Parameter
Machine Performance	Number of Rock Drills	pcs	1
	Applicable Section (W × H)	m ²	4–20
	Transportation Dimension (L × W × H)	mm	8500*1300*1680
	Minimum Turning Radius (Inner/Outer)	mm	2200/4850
	Minimum Ground Clearance	mm	270
	Motor Power	kW	55
	Power Supply Voltage/Frequency	—	380/660V 50Hz
	Total Machine Weight	kg	8700
Thruster	Drilling Diameter	mm	33–76
	Drilling Depth	mm	2700/3400
	Maximum Propulsive Force	kN	15
	Propulsion Drilling Speed	m/min	1–2.5
Travel Mechanism	Steering Method	—	Articulated Steering
	Travel Speed	km/h	0–10
	Rear Axle Swing Angle	°	±6° ~±8°
	Climbing Ability	°	–15° ~+15°
	Transmission Type	—	Hydrostatic Transmission
	Diesel Engine Power	kW	37
Auxiliary Working Device	Air supply pressure	MPa	0.8
	Water supply pressure	MPa	1.2
	Cable Drum Capacity	m	50
	Lighting Lamp	—	4x60w+2x100w
	The vehicle is equipped with fire extinguisher, exhaust gas catalyst, angle ruler, horn, warning light, reverse alarm, car wash gun, and pneumatic lubricating grease gun		



CYTJ45(A)

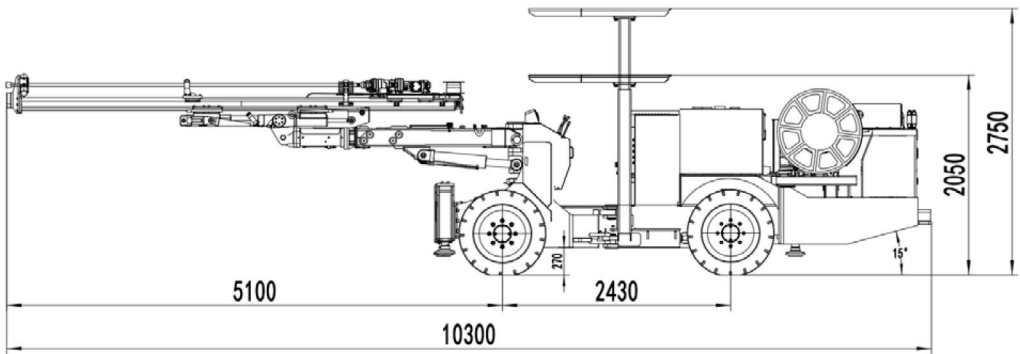


Full-hydraulic single-arm drilling, with optional domestic/imported rock drills; Four-wheel-drive articulated chassis fits 3×3m-6.5m×6.1m roadways; Features international plunger pump hydraulic system with anti-jam protection; Includes multi-alarm safety system and falling object canopy; 360° rotary telescopic drill arm with wear-resistant, lubrication-free aluminum propeller, dual-slide for drilling/bolting, and small turning radius.



Parameters

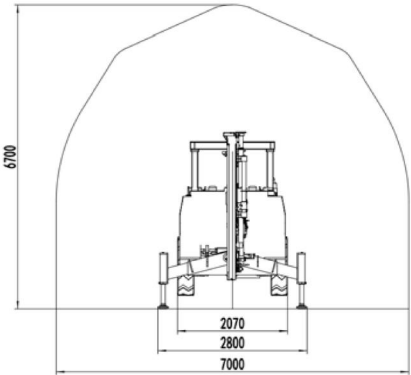
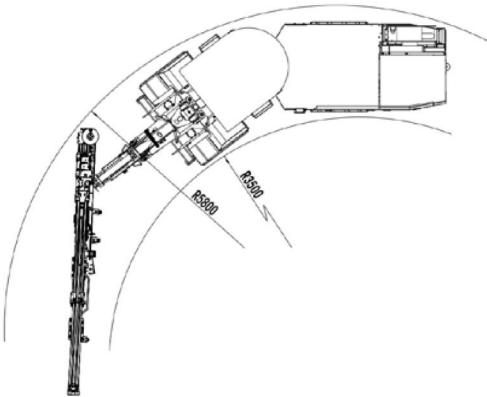
Equipment Model			CYTJ45(A)
Item		Unit	Parameter
Machine Performance	Number of Rock Drills	pcs	1
	Applicable Section (W × H)	m ²	9–36
	Transportation Dimension (L × W × H)	mm	10300*1600*2050
	Minimum Turning Radius (Inner/Outer)	mm	2400/5200
	Minimum Ground Clearance	mm	270
	Motor Power	kW	55
	Power Supply Voltage/Frequency	—	380/660V 50Hz
Thruster	Total Machine Weight	kg	11500
	Drilling Diameter	mm	33–76
	Drilling Depth	mm	3400/4000
	Maximum Propulsive Force	kN	15
Travel Mechanism	Propulsion Drilling Speed	m/min	1–2.5
	Steering Method	—	Articulated Steering
	Travel Speed	km/h	0–10
	Rear Axle Swing Angle	°	±6° ~±8°
	Climbing Ability	°	–15° ~+15°
	Transmission Type	—	Hydrostatic Transmission
Auxiliary Working Device	Diesel Engine Power	kW	54
	Air supply pressure	MPa	0.8
	Water supply pressure	MPa	1.2
	Cable Drum Capacity	m	80
	Lighting Lamp	—	4x60w+2x100w
			The vehicle is equipped with fire extinguisher, exhaust gas catalyst, angle ruler, horn, warning light, reverse alarm, car wash gun, and pneumatic lubricating grease gun



CYTJ45(B)

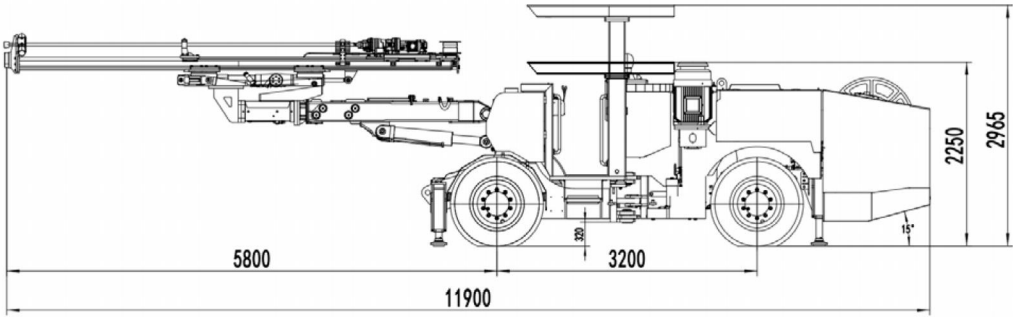


Full-hydraulic single-arm rock drilling, with a China IV diesel engine and four-wheel, four-drive wet brake chassis, max speed 15km/h; Schneider electric control with anti-jamming, overload protections; Dual-triangle parallel drill boom with secondary compensation enables full-section drilling in one stop, with optional devices.



Parameters

Equipment Model			CYTJ45(B)
Item		Unit	Parameter
Machine Performance	Number of Rock Drills	pcs	1
	Applicable Section (W × H)	m²	10–42
	Transportation Dimension (L × W × H)	mm	11900*2070*2250
	Minimum Turning Radius (Inner/Outer)	mm	3500/5800
	Minimum Ground Clearance	mm	300
	Motor Power	kW	55
	Power Supply Voltage/Frequency	—	380/660V 50Hz
Thruster	Total Machine Weight	kg	15800
	Drilling Diameter	mm	33–102
	Drilling Depth	mm	3400/4000/4600
	Maximum Propulsive Force	kN	15
Travel Mechanism	Propulsion Drilling Speed	m/min	1–2.5
	Steering Method	—	Articulated Steering
	Travel Speed	km/h	0–15
	Rear Axle Swing Angle	°	±6° ~±8°
	Climbing Ability	°	–15° ~+15°
	Transmission Type	—	Hydraulic Transmission
Auxiliary Working Device	Diesel Engine Power	kW	66
	Air supply pressure	MPa	0.8
	Water supply pressure	MPa	2.5
	Cable Drum Capacity	m	100
	Lighting Lamp	—	8x60w+2x100w
			The vehicle is equipped with fire extinguisher, exhaust gas catalyst, angle ruler, horn, warning light, reverse alarm, car wash gun, and pneumatic lubricating grease gun

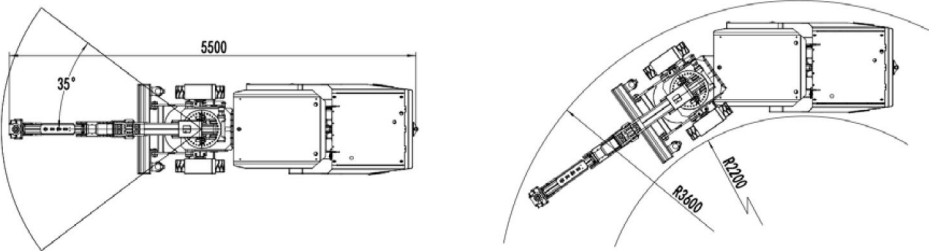




Scaling Jumbo

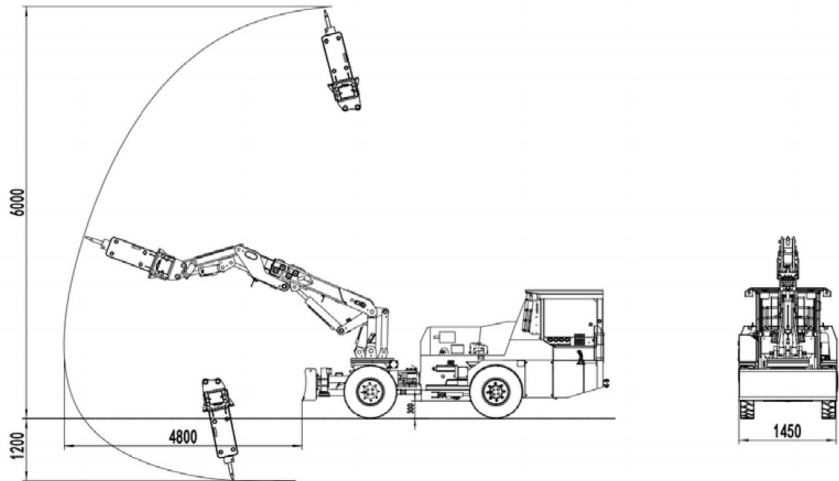


- 1.It is specially designed for narrow section roadway and low stope of non-coal mine mountain, with the body width of 1450mm. The articulated chassis is suitable for small space, and the narrow roadway traffic and steering are flexible without pressure.
- 2.It is equipped with high performance hydraulic operation arm, which can remove pumice dangerous rock in 360 ° without dead angle, and replace manual work to avoid high risk operation risks from the source.
- 3.The standard multiple safety protection and heavy-load structure are suitable for underground severe working conditions, and are the core supporting equipment for safe and efficient risk elimination of underground mines.



Parameters

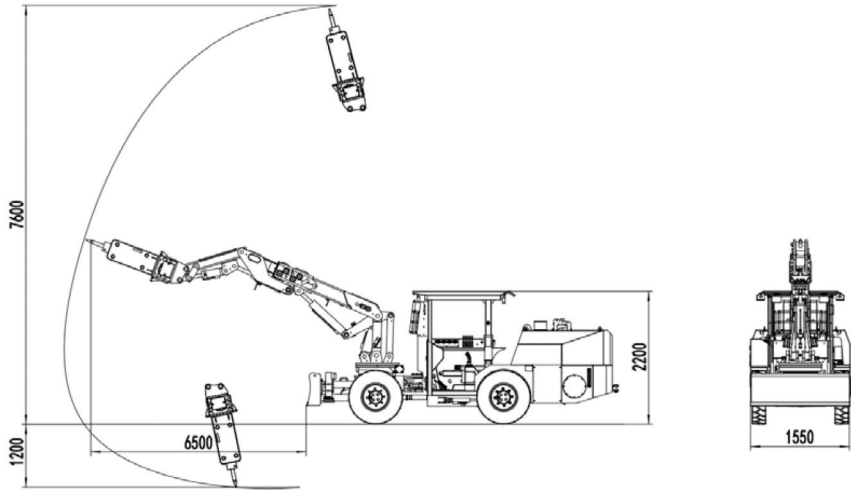
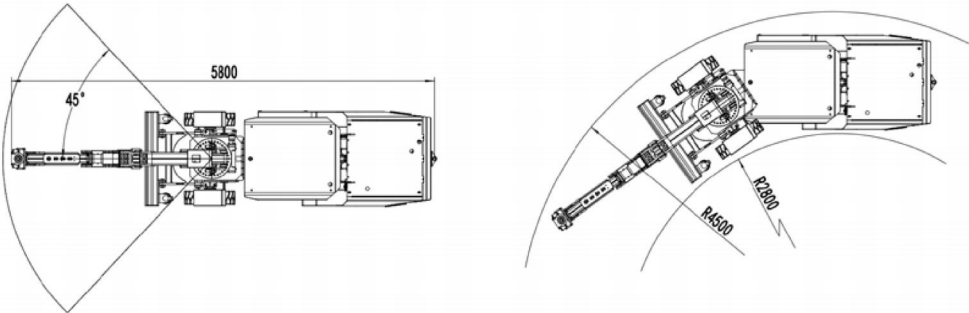
Equipment Model			XMPYT-54/325
Item		Unit	Parameter
Machine Performance	Overall Dimensions	mm	5500 × 1450 × 1850
	Diesel Engine Power	kw	54
	Total Machine Weight	kg	5800
Hydraulic Breaker	Drill Rod Diameter	mm	53
	Impact Frequency	bpm	600-1100
	Driving Oil Pressure	Mpa	10-13
	Driving Flow	L/min	30-50
	Weight	kg	150
Working Device	Maximum Extension Length	mm	4800
	Hydraulic Breaker Swing Angle	°	Up and down 180 Left and right 180
	Maximum Scaling Height	mm	6000
	Working Arm Swing Angle	°	± 35
Travel Mechanism	Travel Speed	km/h	0-7
	Steering System	/	Articulated
	Minimum Turning Radius (Inner/Outer)	mm	2200/3600
	Climbing Capacity	°	± 14
	Stabilization Method in Working State	/	Outrigger Stabilization





- 1.Skid-cleaning equipment specially designed for narrow roadways, with low height and free access to small ore vein and ramp, completely eliminating the blind area for manual troubleshooting.
- 2.Large arm wide angle coverage, quick removal of roof pumice; Remote control operation is optional to realize human-machine separation and prevent rock fall;
- 3.Articulated design, small turning radius, suitable for complex road conditions.
Use machinery to replace high-risk manual operation to provide zero-risk safety guarantee for mine roadway tunneling.

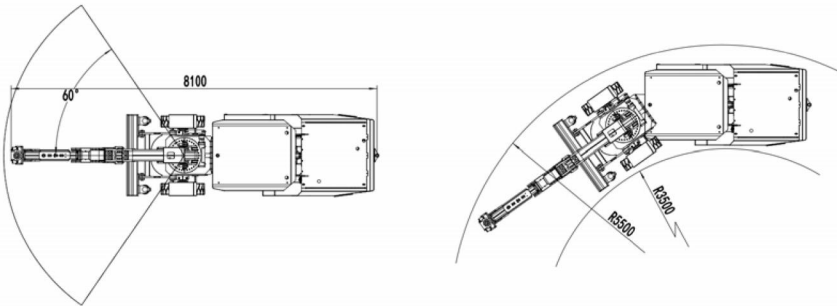
Equipment Model			XMPYT-66/362
	Item	Unit	Parameter
Machine Performance	Overall Dimensions	mm	5800 × 1550 × 2200
	Diesel Engine Power	kw	66
	Total Machine Weight	kg	7800
Hydraulic Breaker	Drill Rod Diameter	mm	53
	Impact Frequency	bpm	600-1100
	Driving Oil Pressure	Mpa	10-14
	Driving Flow	L/min	30-50
	Weight	kg	150
Working Device	Maximum Extension Length	mm	6500
	Hydraulic Breaker Swing Angle	°	Up and down 180 Left and right 180
	Maximum Scaling Height	mm	7600
	Working Arm Swing Angle	°	± 45
Travel Mechanism	Travel Speed	km/h	0-7
	Steering System	/	Articulated
	Minimum Turning Radius (Inner/Outer)	mm	2800/4500
	Climbing Capacity	°	± 14
	Stabilization Method in Working State	/	Outrigger Stabilization



XMPYT-74 / 450

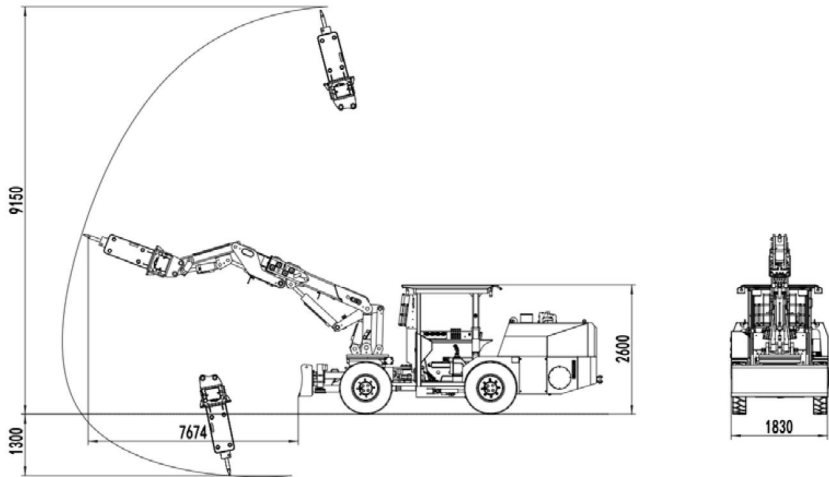


- 1.It is specially designed for risk elimination of mine tunnel, with compact structure and flexibility.
- 2.High-performance hydraulic breaking hammer is equipped, with strong impact force and wide operation range. The maximum prying height can reach more than 9m. The working arm swings in multiple angles, easily covering the whole section of the roadway.
- 3.The articulated chassis runs stably, has strong gradeability, small minimum turning radius and adapts to complex underground road conditions. During operation, the outrigger is stable to ensure safe and reliable operation, which is the ideal equipment for mechanized mine troubleshooting.



Parameters

Equipment Model			XMPYT-74/450
Item		Unit	Parameter
Machine Performance	Overall Dimensions	mm	8100 × 1830 × 2600
	Diesel Engine Power	kw	74
	Total Machine Weight	kg	12000
Hydraulic Breaker	Drill Rod Diameter	mm	68
	Impact Frequency	bpm	500—950
	Driving Oil Pressure	Mpa	10—14
	Driving Flow	L/min	40—70
	Weight	kg	256
Working Device	Maximum Extension Length	mm	7674
	Hydraulic Breaker Swing Angle	°	Up and down 180 Left and right 180
	Maximum Scaling Height	mm	9150
	Working Arm Swing Angle	°	± 60
行走机构 Travel Mechanism	Travel Speed	km/h	0—7
	Steering System	/	Articulated
	Minimum Turning Radius (Inner/Outer)	mm	3500/5500
	Climbing Capacity	°	± 14
	Stabilization Method in Working State	/	Outrigger Stabilization





NOTES

Other Commonly Used Mining Equipment

Mucking Loader

The Mucking Loader is a continuous, high-efficiency ore-discharging equipment, serving as an ideal replacement for scraper loaders and vertical-claw loaders. It can meet the slag-loading requirements for small-section roadway construction.

It is widely used in various section excavations of mine inclined shafts, vertical shafts and level roadways, as well as ore mining such as phosphate ore and iron ore. It is also suitable for tunnel excavation projects including railway tunnels, highway tunnels and water diversion tunnels.

The equipment adopts a full-hydraulic crawler structure. It scrapes materials into the central scraper conveyor trough and then conveys them to subsequent equipment such as mine cars and belt conveyors. The bucket can also clean the working face. Driven by hydraulic motors, the crawler features strong power sufficient climbing capacity and high flexibility, making it adaptable to roadways with moisture and water accumulation.



Mucking loader Diesel Electric dual power						
Item		Unit	ZWY-80/30LS	ZWY-100/45LS	ZWY-150/55LS	ZWY-180/75LS
Applicable Cross-section (Width × Height)		m	3.2 × 2.2	4.8 × 3.2	5.8 × 4.5	6.2 × 5
Loading Capacity		m³/h	80	100	150	180
Main Motor Power		KW	30	45	55	75
Power of diesel engine		kw	54	66	74	96
Excavation Width		mm	3200	4600	5800	6200
Excavation Distance		mm	1550	1800	2500	2900
Excavation Height		mm	1800	3000	3800	4000
Excavation Depth		mm	400	700	990	1080
Discharge Height (Variable)		mm	1700-2500			
Discharge Distance (Variable)		mm	1200-4000			
Scraper Conveying Structure		/	Single chain		Double chain	
Applicable Roadway Gradient		°	(-20° ~+20°)		(-32° ~+32°)	
Travel Speed		km/h	3--5			
Maximum overall dimensions in working condition	Length	mm	6500	6900	7400	7900
	Width	mm	1750	2200	2300	2400
	Height	mm	1750	2900	3600	3800
Overall Weight		Kg	7800	11500	15500	18100

Parameters Electric

Item		Unit	ZWY- 80/30L	ZWY- 80/37L	ZWY- 80/45L	ZWY- 100/45L	ZWY- 120/55L	ZWY- 150/55L	ZWY- 180/75L	ZWY- 220/75L
Applicable Cross-section (Width× Height)		m	3.2×2.2	3.5×2.5	4×2.5	4.8×3.2	5.4×4.0	5.8×4.5	6.2×5	7.5×5.5
Applicable Roadway Gradient		°	(-16° ~+16°)		(-20° ~+20°)		(-32° ~+32°)			
Loading Capacity		m³/h	80			100	120	150	180	220
Control Mode		/	Hydraulic pilot control							
Main Motor Power		KW	30	37	45		55		75	
Excavation Width		mm	3200	3500	4000	4600	5400	5800	6200	7000
Excavation Distance		mm	1550		1600	1800	2150	2500		3300
Excavation Height		mm	1800		2200	3000	3500	3800	4000	4300
Excavation Depth		mm	400		500		800	990		1050
Discharge Height (Variable)		mm	1200				1450			2000
Discharge Distance (Variable)		mm	1150							
Scraper Conveying Structure		/	Single chain				Single chain (or double chain)			double chain
Travel Speed		m/s	0.5							
Ground Clearance		mm	300							
Contact Pressure		Mpa	≤ 0.1							
Rated Working Pressure		Mpa	23							
Maximum disassembly dimensions	Length	mm	3350							4200
	Width	mm	850		900	1000	1100			1200
	Height	mm	1200			1400		1500		
Maximum disassembly weight		Kg	2300				3000			3500
Maximum overall dimensions in working condition	Length	mm	6000	6500			6800	7000	7500	8800
	Width	mm	1750		1800	2200	2350			2640
	Height	mm	1750	1750	1800	2900	3250	3600	3800	4200
Overall Weight		Kg	7600	8000	8200	11200	13800	15200	17800	20000

Shuttle Mine Car

The shuttle mine car (also known as the movable gangue bunker) is a highly efficient mucking and transportation equipment, mainly used in tunneling construction for underground mine galleries, railway tunnels, hydraulic culverts, military culverts and other engineering projects. Generally hauled by locomotives, the shuttle mine car can be used in conjunction with digging loaders, jumbo drills and other equipment to form a mechanized operation line for gallery excavation.



Parameters

Item		Unit	MSCT-8	MSCT-14	MSCT-20	MSCT-25	MSCT-30
Volume		m ³	8	14	20	25	30
Dead weight		t	10.2	12.6	19.4	22.6	26
Load capacity		t	20	28	40	45	55
Gauge		mm	600/762/900				
Overall Dimensions	Length	m	9.5	11.25	13.5	16.2	20.1
	Width	m	1.5	1.77	1.75	1.75	1913
	Height	m	1.8	2.37	2.95	3.24	3.18
Minimum turning radius (single car)		m	10	15	20	20	30
Loading height		m	1.2	1.38	1.5	1.5	1.5
Unloading time		min	1.5	2.5	3	3.5	4
Maximum running speed		km/h	15	15	20	20	15
Maximum motor power		kW	13	18.5	22x2	22x2	30x2
Drive type (single/dual)		/	Single drive	Single drive	dual drive	dual drive	dual drive
Bogie center distance		mm	5310	5450	6500	9550	13545
Applicable rail		Kg/m	≥ 24	≥ 33	≥ 38	≥ 38	≥ 38
Applicable roadway cross-section (Width × Height)		m	3 × 3	3.4 × 3.5	4*4.5	4 × 4.5	4 × 4.5

Secondary Conveyor

Product Introduction

The secondary belt conveyor is hinged to the mucking loader, with a sliding carriage installed at the lower part of its frame. It can move forward and backward along with the mucking loader, and can be connected to various equipment such as rear belt conveyors and mine car sets.



Parameters

Model	Handling Capacity(t/h)	Conveying Distance (m)	Belt Width (mm)	Belt Speed (m/s)	Motor Power (kW)	Drum Diameter (mm)
DZQ80/35/11	350	25	800	1.6	11	500
DZQ80/35/15	350	25	800	1.6	15	500
DZQ80/35/18.5	350	25	800	1.6	18.5	500

Hydraulic Anchor Bolt Drill

Product Presentation

The dual-arm hydraulic bolt drilling machine for coal mines is an innovative roadway support equipment. Designed to work in tandem with roadheaders and drilling-assembly units, it enables rapid support operations, parallel tasks, and enhanced mechanization. Primarily used for supporting coal-rock and semi-coal-rock roadway faces, this machine simultaneously anchors bolts and cables to both the roadway roof and side walls. It also features drilling and blasting capabilities within coal seams, along with detection holes for water and gas exploration.



Parameter

[illegible]

General characteristics

■ **Staff reduction, efficiency enhancement, and cost reduction:** Replacing 4-6 traditional manual drilling rigs, the workforce is reduced from 8-12 to 3 operators, with single anchor bolt and cable support operations achieving over 50% efficiency improvement.

■ The safety is improved the drilling machine is equipped with a movable and telescopic temporary support mechanism and the operator works under the permanent support 2 meters away from the drilling hole, which eliminates the dangerous working condition of the empty roof, and the mechanism also has the function of stabilizing the machine.

■ Reduce labor intensity by replacing manual drilling with hydraulic valve operation, and eliminate traditional scaffolding by installing a height-adjustable work platform. Temporary support structures can also lift metal mesh and other materials.

■ The support quality is improved by increasing the support torque from 100N.M to 350N.M, and eliminating the manual secondary tightening process by using the anchor bolt with a large pre-tightening force.



- hydraulic pressure system

■ The variable load sensitive system and constant power control are adopted to reduce the energy consumption and cost, and to reduce the heat of the system.

■ The multi-filtration system ensures oil cleanliness, reduces hydraulic system failures, and features optimized pump flow matching with an efficient water cooler, guaranteeing stable hydraulic performance and optimal oil temperature.

■ The hydraulic system is designed reasonably, safe and reliable, and the main hydraulic components are all selected from foreign manufacturers to ensure the stability of the system.

■ Each drill arm is equipped with an oil circuit power output port (pressure>40MPa) for the integrated anchor cable tensioning device, facilitating the anchor cable tensioning operation.

- Remote control

The remote-controlled coal mine hydraulic bolt drilling rig is an upgraded version of the standard model, featuring remote control functionality to enable precise operation. Each rig is equipped with two remote controllers for seamless control of all drilling functions. The electrical control box also includes a reserved Gigabit Ethernet interface, allowing easy integration with the mine's Ethernet ring network for remote transmission and control of the drilling rig.

Parameter	Value
Number of iterations	1000
Number of epochs	100
Number of hidden units	10
Number of output units	1
Learning rate	0.01
Momentum	0.9
Initial weights	Randomly initialized
Activation function	Sigmoid
Loss function	Cross-entropy
Optimizer	Adam
Batch size	32
Dropout rate	0.5
Early stopping	Yes
Patience	10
Validation set	10%
Test set	10%
Train set	80%
Dataset	Handwritten digit recognition
Model architecture	Simple feedforward neural network
Hardware	GPU
Software	Python, TensorFlow
Environment	Ubuntu 18.04
Version	1.0
Author	John Doe
Contact	john.doe@example.com
License	MIT
Repository	https://github.com/johndoe/nn
Keywords	Neural Networks, Machine Learning, Deep Learning
Abstract	This paper presents a simple feedforward neural network for handwritten digit recognition. The network is trained using the Adam optimizer and the cross-entropy loss function. The results show that the network achieves a high accuracy on the test set.
Introduction	Neural networks have become a popular tool for machine learning. In this paper, we present a simple feedforward neural network for handwritten digit recognition. The network is trained using the Adam optimizer and the cross-entropy loss function. The results show that the network achieves a high accuracy on the test set.
Methodology	The methodology involves training a simple feedforward neural network. The network has one input layer, one hidden layer, and one output layer. The input layer has 10 units, the hidden layer has 10 units, and the output layer has 1 unit. The network is trained using the Adam optimizer and the cross-entropy loss function. The results show that the network achieves a high accuracy on the test set.
Results	The results show that the network achieves a high accuracy on the test set. The accuracy is approximately 95%.
Conclusion	The conclusion is that a simple feedforward neural network can achieve high accuracy on handwritten digit recognition. The network is easy to train and requires minimal resources.
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Project	Unit	CMM2-21/ CMM2-21Y	CMM2-24/ CMM2-24Y	CMM2-25/ CMM2-25Y	CMM2-27/ CMM2-27Y	CMM2-30/ CMM2-30Y	CMM2-33	CMM2-35/ CMM2-35Y	CMM2-36/ CMM2-36Y
Number of Drills	—	2							
Adapt to roadway section	m2	21	24	25	27	30	33	35	36
Maximum workingheight	mm	4000	4400	4500		5000	5200	5600	
Maximum working width	mm	5400	5400	5500	5900	6200	6300	6500	
Minimum turning radius in running condition	mm	3000	3100			3500			
Dimensions: length × width × Gao	m	6.2x0.8x2.3	5.8x1.25x2.7	5.8x1.3x2.7	6.0x1.3x2.7	6.0x1.4x2.8		6.2x1.4x2.8	
Speed of travel	m/ min	8							
Climbing capacity	(°)	± 16							
Temporary support force	kN	≥ 20							
Borehole diameter	mm	Φ 27—Φ 48							
Drilling tool	mm	B19/B22							
Weight of aircraft	kg	12000	17000			18000			
Oil pump displacement	mL/r	145							
Total installed power	kW	45							
Working voltage	V	660/1140							
Remote control	—	Remote control optional							
Working torque	N · m	350							
Working speed	r/min	580							
Progression	mm	1800							
Drilling rate	mm/ min	≥ 1000							

Crawler type fully hydraulic tunnel boring machine for coal mine

Product Presentation

The crawler fully hydraulic tunnel boring machine is a crawler self-propelled drilling machine. This drilling machine adopts a new type of variable amplitude device, which can realize the adjustment of various drilling angles and drilling heights. It is mainly suitable for double-layer or multi-layer hole construction in coal seams, gas drainage drilling, water exploration and drainage hole construction, deep geological drilling and other group drilling purposes.



Performance features

- The integrated design of the host, pump station and crawler walking part makes it compact and flexible, which can be used in narrow roadway for multi-purpose drilling.
- The heavy-duty rotary reducer is used to realize $\pm 180^\circ$ horizontal adjustment and fast hole finding operation without moving the crawler chassis.
- The multi-angle adjustment function is realized by the coordination of the angle-adjusting reducer and the lifting cylinder, which can be used for drilling in different directions and angles. The inclination and azimuth can be adjusted within $\pm 90^\circ$.
- The hydraulic system uses main pump and auxiliary pump, low speed and high torque, which can better solve the drilling of hard coal, poor permeability of coal seam, soft and hard coal seam and soft coal seam in high gas mine.
- It is equipped with four legs (front, back, left, and right) to provide a large support area and excellent stability.
- It has the function of linkage and single action, and designs a variety of linkage parameters to achieve the independent adjustment function of the drilling rig, which can quickly realize the functions of drilling, reversing the rod, and lifting and lowering the drill, and the operation is simple and convenient.

Parameter

Project		Unit	ZDY1250LPS	ZDY1900LPS	ZDY2400LPS	ZDY3200LPS	ZDY4500LPS	ZDY6500LPS	ZDY8000LPS
Slewing gear	Nominal torque	N.m	1250	1900	2400	3200	4500	6500	8000
	Rated speed	r/min	48-220						
	Feed	KN	120	150		180		210	
	Lifting force	KN	150	180		230		280	
	Give the process	mm	850/650						
	Dip angle of hole	°	± 90						
	Rod diameter	mm	50/63.5			63.5/73		73/89	
	Maximum borehole depth	m	100	150		300		400	500
	Minimum workingheight	mm	1200						
	Maximum work-ingheight	mm	2200						
Running gear	Working pressure	MPa	25						
	Speed of travel	m/min	0-30						
	Climbing capacity	°	± 18						
Hydraulic power unit	Power of motor	Kw	22	30	37	45	55	75	90
	Nominal working pressure	MPa	25						
Dimensions (length * width * height)		mm	$\leq 3350*850*1750$			$\leq 3550*950*1900$		$\leq 3850*1050*2000$	
Weight variation $\pm 5\%$		kg	3300	3500	4000	5000	5800	6800	7500

Engineering Drilling Machine for Coal Mine (Directional Drilling Machine)

Introduction

The all-round directional drilling rig is suitable for various construction techniques including bottom-hole motor directional drilling, rotary drilling at the wellbore, and composite drilling. It can be used for high-precision directional drilling within 300-800m depths, such as coal mine gas extraction, underground water exploration and drainage, geological structure and coal seam thickness detection, coal seam water injection, and roof and floor grouting.



Performance characteristics

- Strong directional drilling capability: Equipped with bottom hole motor and real-time measurement system, it can precisely control the drilling trajectory.
- The drilling trajectory is controllable: the branch hole construction can be carried out, and the "one main and many branches" tree drilling network can be realized, which greatly improves the gas extraction area and efficiency;
- High drilling efficiency: The high-torque power head delivers robust output, adapting to complex geological conditions to effectively enhance drilling speed and hole depth.
- Robust safety features: Real-time monitoring of drilling parameters and fault diagnosis capabilities to enhance construction safety.
- Data acquisition management: It can record and store the full-hole trajectory and drilling parameters, providing data support for geological analysis.
- Modular design: compact structure, easy disassembly, convenient for underground transportation, quick installation and relocation.

Parameters

Project		Unit	ZYWL-4500D	ZYWL-6500D	ZYWL-8500D
Overall unit	Nominal torque	N.m	4500	6500	8500
	Rated speed	r/min	60		
	Spindle inclination	°	± 90°		
	Rod diameter	mm	73/89		
	Outline dimension	mm	4100x1050x2100		
	Quality	Kg	7000	7800	8800
Feed mechanism	Guide rail length	mm	2200		
	Progression	mm	0-800		
	Drive	KN	160/200		
	Lifting force	KN	160/200		
Pump station	Rated pressure	MPa	25		
	Rated voltage	V	660/1140		
	Power rating	KW	55	75	90
Running gear	Walking style	mm	Crawler-type		
	Working pressure	MPa	22		
	Speed of travel	m/min	30		
	Climbing capacity	(°)	± 18°		

Introduction

The horizontal directional drilling rig is a kilometer-long directional drilling rig designed for various construction techniques, including bottom-hole motor directional drilling, rotary drilling at the wellhead, and composite drilling. It is widely used in coal mine gas drainage drilling, underground water exploration and drainage, water hazard management, coal seam thickness detection, complex geological structure exploration, concealed geological hazard detection, coal seam water injection, roof and floor grouting, and impact pressure prevention. Particularly excelling in large-diameter high-position hole construction, this rig demonstrates outstanding advantages in such applications.





Performance Characteristics

- Operation modes: The system features two control options—hydraulic pilot control and intelligent remote control—selectable based on customer requirements.
- Hydraulic system: Featuring a load-sensitive design with dual rotary motors, it delivers high torque at low speeds, significantly boosting drilling speed and hole depth.
- Drilling measurement: Real-time monitoring of drilling parameters and fault diagnosis function, improving construction safety;
- Data acquisition management: It can record and store the full-hole trajectory and drilling parameters, providing data support for geological analysis.

Parameter

Project		Unit	ZYWL-13000D	ZYWL-15000D	ZYWL-17000D	ZYWL-20000D
Overall unit	Nominal torque	N.m	13000	15000	17000	20000
	Rated speed	r/min	50			
	Spindle inclination	°	-20 ~ + 20°			
	Rod diameter	mm	89/95/127			
	Outline dimension	mm	4200x1550x2000			
Feed mechanism	Quality	Kg	13000	13700	14500	15000
	Guide rail length	mm	3000			
	Progression	mm	0-1200			
	Drive	KN	280/350			
	Lifting force	KN	280/350			
Pump station	Rated pressure	MPa	25			
	Rated voltage	V	660/1140			
	Power rating	KW	110	132	132	160
Running gear	Walking style	mm	Crawler-type			
	Working pressure	MPa	22			
	Speed of travel	m/min	30			
	Climbing capacity	(°)	± 18°			

Split-Type Fully Hydraulic Tunnel Boring Machine for Coal Mine

Product Presentation

The split-type full hydraulic tunnel boring machine is a power head type drilling machine, which has a wide speed range and large torque, and can meet the needs of various drilling purposes in coal mine, such as gas drainage hole, water injection hole and other engineering holes, and can also be used in surface engineering construction.

The machine has the advantages of reasonable structure, advanced technical performance, strong adaptability of process, easy operation, safe and reliable, good disassembly and convenient relocation.



Parameter

Inspecting item		Unit	ZDY650S	ZDY850S	ZDY1200S
Main engine	Rotating rated pressure	MPa	22		
	Nominal torque	N. m	650	850	1200
	Rated speed	r/min	80		
	Feed	kN	40	50	80
	Lifting force	kN	60	70	100
	Feed stroke	mm	600		
	Dip angle of hole	°	± 90		
	Rod diameter	mm	42/50		50/63
	Mainframe dimensions	mm	2000*1150*1500		
	Host quality	kg	685	735	805
Pump station	Rated pressure	MPa	22		
	Rated voltage	V	660/1140		
	Power rating	kw	15	18.5	22
	Quality of pumping station	kg	450	525	565
Operating floor	Outline dimension	mm	650*485*790		
	Weight of workbench	kg	151		

Mine Hydraulic Excavator

Product Presentation

The mine hydraulic excavator is suitable for coal mine, metal mine, non-metal mine, vertical shaft, inclined shaft and level roadway excavation, loading, bottom cleaning and frozen soil layer excavation. It can meet the needs of excavation, lying down, expanding side, side digging, breaking rock, shoveling, cleaning the bottom of belt conveyor, loading, leveling roadway and other functions.

Key Performance Features

- The work platform can rotate 360° horizontally, while the boom features a three-section design with ±90° rotation capability.
- According to the size of the roadway, adjust the height of the arm to avoid touching the anchor bolt, anchor cable, and roadway roof, allowing flexible operation at different cross-section heights.
- The machine can be equipped with a variety of auxiliary tools such as a hammer, a milling head, and a hydraulic shear, which enables it to serve multiple purposes.



Parameters-Electric Type

Project		Unit	MWD2.1/0.1L	MWD3.3/0.16L	MWD5.5/0.2L	MWD6.8/0.28L
Essential parameter	Standard barrel capacity	m³	0.1±0.01	0.16±0.016	0.2±0.02	0.28±0.028
	Workmanship	kg	2100±105	3300±165	5500±275	6800±340
	Rated power of main motor	kw	22	30	37	55
Hydraulic system parameter Count	Rated pressure	Mpa	21.5	21.5	21.5	21.5
	Maximumflow	L/min	70	90	110	135
Mining parameters	Excavating radius	mm	3800	3500	4500	5500
	Excavating depth	mm	1000	1800	2000	2600
	Excavation depth mm	mm	3600	3800	4700	5500
	Unloading height (mm)	mm	1600	2000	2500	2900
Walk mechanism parameter Count	Walking style	/	Spring Brake for Walking Motor	Spring Brake for Walking Motor	Spring Brake for Walking Motor	Spring Brake for Walking Motor
	Walking style	/	Track walking	Track walking	Track walking	Track walking
	Grounding pressure	Mpa	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
	Speed of travel	m/min	26.5	26.5	26.5	26.5
	Ground clearance	mm	≥ 150	≥ 180	≥ 250	≥ 280
	Climbing capacity	°	≥ 14 (applicable slope range: -14° to +14°)	≥ 14 (applicable slope range: -14° to +14°)	≥ 14 (applicable slope range: -14° to +14°)	≥ 14 (applicable slope range: -14° to +14°)
	Minimum turning radius of track	mm	≤ 900	≤ 1100	≤ 1400	≤ 1600
External dimensions (length × width × height)		mm	3300 × 1050 × 2300	3300 × 1350 × 2300	3400 × 1450 × 2350	3500 × 1550 × 2600

Parameters-Diesel Type

Project		Unit	MWC6/0.25L	MWC7.8/0.28L
Workmanship (kg)		kg	6000 ± 300	7800 ± 390
Explosion-proof diesel engine	Starting mode	/	Electric start	
	Protective type	/	Electric protection	
	Model	/	TDE493DZLDFB(A)	
	Power	kW	65	
	Speed	rpm	2200	
Dredger capacity		m³	0.25	0.28
Maximum digging radius		mm	≥ 4800	≥ 5500
Maximum excavation depth		mm	≥ 2000	≥ 2200
Maximum vertical excavation depth		mm	≥ 1650	≥ 1850
Maximum excavation height		mm	≥ 4850	≥ 5250
Maximum dump clearance		mm	≥ 4000	≥ 4420
Climbing capacity		°	≥ 16(−16° ~+16°)	
Excavation power		kN	≥ 18	≥ 20
Minimum ground clearance		mm	≥ 160	
Maximum walking speed		m/min	28	
Working organ pressure		MPa	21.5	
Walking motor pressure		MPa	21.5	
Grounding pressure		MPa	≤ 0.1	
Braking form		/	Failure safe type (spring brake)	
External dimensions (length × width × height)		mm	3350 × 1680 × 2450	3500 × 1680 × 2550

All Hydraulic Side Discharging and Loading Machine

Product Presentation

The fully hydraulic side-discharge rock loader is a next-generation trackless equipment designed for coal (or other mineral) loading in mine tunnels. It also handles rock loading in narrow-section full-rock roadways, featuring high penetration force, excellent maneuverability, full-section operation capability, enhanced safety, and multi-functional versatility. Beyond loading tasks, it powers hydraulic drilling tools, serves as a support platform, and performs short-distance face transportation, caving, and wall cleaning. Equipped with a crusher hammer, it efficiently breaks large rocks and coal lumps, significantly boosting tunneling speed and delivering substantial economic benefits.



Product Composition and Classification

According to the power form, the fully hydraulic side discharge rock loader is divided into two types: electric motor power and diesel engine power.

The equipment consists of six parts: side discharge shovel mechanism, crawler walking assembly, frame assembly, power system, driving control system, and electrical system. Users can select the appropriate model based on their specific requirements for tunnel cross-sectional size, loading efficiency, and power form.

Parameters-Diesel Type

Project		Unit	ZCN60R	ZCN80R	ZCN100R	ZCN120R	ZCN150R	ZCN180R
Installed power		kw	62kw					
Explosion-proof diesel engine	Starting mode	/	Electric start					
	Protective type	/	Electric protection					
	Model	/	TKC4105DZLDFB					
	Power	kW	62					
	Speed	rpm	2200					
Volume of technical bucket		m ³	0.6	0.8	1	1.2	1.5	1.8
Bucket width		mm	1520±10	1696±10	1920±10	2250±10	2430±10	2590±10
Maximum dump clearance		mm	≥1650	≥1650	≥1650	≥1700	≥1750	≥1800
Maximum depth of penetration		mm	≥350	≥360	≥370	≥380	≥400	≥420
Climbing capacity		°	≥16(−16° ~+16°)					
Pull		kN	≥20	≥30		≥45		
Minimum ground clearance		mm	≥180					
Maximum walking speed		m/min	42±4					
Working organ pressure		MPa	20					
Walking motor pressure		MPa	20					
Noise (sound pressure level)		dB (A)	≤90					
Grounding pressure		MPa	≤0.1					
Transportation state dimensions (length * width * height) ±50		mm	4500	4585	4855	5125	5225	5380
		mm	1525	1696	1922	2385	2433	2590
		mm	2058	2088	2122	2155	2175	2200
Total weight (±5%)		kg	5200	6500	7500	7900	8200	9000
Braking form		/	Failure safe type (spring brake)					
Track length		mm	1650	1730	1850	1950	2000	2080
Track width		mm	260	260	260	300	300	300

MAain features

■ The equipment features powerful loading capacity, high insertion force for tracked movement, and full-face loading capability, making it suitable for constructing both flat and inclined roadways of various cross-sections. When working on larger cross-section roadways or at roadway intersections, it can fully demonstrate its high-efficiency characteristics.

■ The integrated supporting performance is good, the maneuverability is flexible, the adaptability is strong, and it can be easily matched with other equipment in the roadway, such as the anchor bolt drilling machine, drilling car, scraper conveyor, belt conveyor and mine car.

■ The most important feature of the all-hydraulic side-discharge rock loading machine is that it is multi-purpose.

● The bucket can be used to lift heavy objects such as metal supports and arching tires for support, and can also transport materials over short distances, such as sand and gravel, as well as small equipment.

● The bucket can be used as a support platform after being lifted, which is convenient for roof management.

● It can supply high-pressure oil to other equipment, such as hydraulic anchor drilling rig.

● The excellent performance of the machine in the work of under-bed and cleaning gang will realize the 100% mechanization of loading operation for the first time, making the "no shovel" working face a reality.

Parameter- Electric Type

Project	Unit	ZCY45R	ZCY60R	ZCY80R	ZCY100R	ZCY120R
Volume of technical bucket	m³	0.45	0.60	0.80	1.00	1.2
Main motor power	kW	30	45	55		
Voltage	V	660/1140			660/1140	
Bucket width	mm	1360	1510	1646	1646	1826
Maximum dump clearance	mm	1800	1800	1900	1900	2000
Maximum depth of penetration	mm	500	500	350	450	450
Climbing capacity	°	16	16	16	16	16
Pull	kN	≥20	≥20	≥40	≥40	≥40
Minimum ground clearance	mm	≥180	≥180	≥200	≥200	≥200
Maximum walking speed	m/s	≥0.5	≥0.5	≥0.81	≥0.81	≥0.81
Working organ pressure	MPa	18±0.5	18±0.5	18±0.5	18±0.5	18±0.5
Walking motor pressure	MPa	20±0.5	20±0.5	20±0.5	20±0.5	20±0.5
External oil port pressure	MPa	20±0.5				
Noise (sound pressure level)	dB	≤90				
Centre-of-gravity position		Xg=635 Yg=625	Xg=650 Yg=625	Xg=710 Yg=685	Xg=750 Yg=685	Xg=780 Yg=685
Track ground pressure (MPa)		0.09			0.1	
Outline dimension	Long (mm)	4650	4650	5100	5330	5370
	Wide (mm)	1360	1510	1646	1646	1826
	Gao (mm)	2046	2046	2300	2300	2300
Weight (oil excluded) (kg)		4500	4650	7350	8300	8500

Hydraulic Drilling Car for Coal Mine

Product Presentation

The hydraulic tunnel boring machine for coal mines is primarily designed for tunneling operations in coal mines and other underground projects. Featuring a fully hydraulic rock drilling system with advanced technology, it incorporates a jam prevention device to ensure rapid drilling and high efficiency. Its versatile drilling mechanism can work on working faces, roof, and side walls, while the short sliding frame facilitates upward bolt hole drilling. The machine boasts a compact structure, small size, energy efficiency, low noise, multifunctionality, and high productivity. When paired with our company's excavator-type loaders and side-discharge rock loaders, it enables mechanized rock tunneling, significantly boosting drilling speed.



Performance features

- Energy saving: For a certain drilling capacity of drilling rig, the power required by the electric hydraulic system is only 1/3 of the power loss of pneumatic drilling.
- The efficiency and speed of drilling are high: under the same conditions of rock and hole diameter, the drilling speed of hydraulic drilling machine is more than twice that of pneumatic drilling machine.
- The cost of drill pipe is low because the hydraulic drilling parameters can be adjusted, and the optimal drilling parameters can be selected under different rock conditions.
- Reducing the cost of rock drilling: Because of the high hydraulic pressure, the piston of hydraulic rock drilling machine has a small force area at the same impact speed, the impact piston area is close to the area of the tail of the drill, the stress transfer loss is small, the force is uniform, the life is long and the failure is less, so the cost can be reduced.
- Improving working environment, low noise: Since hydraulic rock drilling does not require exhaust gas removal, it causes no environmental pollution from exhaust gases or oil contamination, enhancing visibility at the working face and improving the operational environment. Apart from metal impact sounds, hydraulic rock drilling emits no exhaust gas noise, thus reducing noise levels compared to pneumatic rock drilling.
5 ~ 10 decibels.
- Improving construction quality: This drilling rig can ensure the accuracy of drilling depth and spacing, and the dimension and surface of the roadway after hydraulic rock blasting are regular, so it can improve the construction quality of the project.
- It is beneficial to safety production because the driver's position is far away from the working face and the driver is working under the support, which prevents the working in the empty roof and is beneficial to safety production.

Parameter

Model		CMJ2-17	CMJ2-25	CMJ2-30	CMJ2-35
Dimensions (length × width × height) mm		9020 ± 100 × 1200 ± 50 × 2455 ± 50	10350 ± 100 × 1200 ± 50 × 2455 ± 50	10350 ± 100 × 1350 ± 50 × 2680 ± 50	11005 ± 100 × 1371 ± 50 × 2680 ± 50
Number of Drills		2	2	2	2
Borehole diameter mm		Φ32 ~ Φ51	Φ32 ~ Φ51	Φ32 ~ Φ64	Φ32 ~ Φ64
Rod length in mm		2475	2475	3090	3090
Drilling depth mm		2100	2100	2700	2700
Applicable section m ²		17	25	30	35
Working range (width × height) mm		5000 × 3500	5900 × 4330	6500 × 4700	7200 × 5200
Main motor power (KW)		55	75	75	75
All up kg		9500	12000	14000	14850 ± 200
Climbing capacity		14°	14°	14°	14°
Working stability width mm		2115 ± 50	2115 ± 50	2265 ± 50	2265 ± 50
Model		HYD200/HC28	HYD200/HC28	HYD200/HC28	HYD200/HC28
Level elevation angle		47°	45°	55°	55°
Swing arm		In 14° out 30°	Left 35° Right 35°	Left 35° Right 35°	Left 35° Right 35°
Advance compensation stroke mm		1200	1550	1550	1550
Arm extension length (mm)		Not have	Not have	850	850
Gyration		Positive 180° Negative 180°	Positive 180° Negative 180°	Positive 180° Negative 180°	Positive 180° Negative 180°
Cabrage		Down 105° Up 15°	Down 95° Up 3°	Down 95° Up 15°	Down 95° Up 15°
Oscillation angle		Inner 14° Outer 47°	Inner 35° Outer 35°	In 14° out 35°	In 14° out 35°
Air feed Installation	Rated pressure MPa	0.4	0.4	0.8	0.8
	Rated flow rate L/min	300	300	300	300
	Power of motor KW	2.2	2.2	2.2	2.2
Water supply Installation	Rated pressure MPa	0.8	0.8	2	2
	Rated flow rate L/min	80	80	80	80
	Power of motor KW	2.2	2.2	3	3

Mucking Loader

Product Presentation

The excavator loader (commonly known as a slag scraper) is a continuous, high-efficiency ore extraction device. As an ideal replacement for mining bucket loaders and vertical claw loaders, it meets the slag loading requirements for small-section roadway construction. This equipment is widely used in various cross-section excavation and loading operations for inclined shafts and vertical shafts in mines, as well as in the mining and loading of phosphorus ore, iron ore, manganese ore, and other ores. Additionally, it is extensively applied in tunnel excavation projects such as railway tunnels, highway tunnels, and water diversion tunnel engineering.

This fully hydraulic crawler-mounted machine employs a unique reverse shovel system to extract rock (or ore), which is then chipped into a central scraper conveyor trough. The scraper conveyor mechanism transports the material from the front to rear receiving equipment (including various ore cars, belt conveyors, and trucks). The excavator's bucket can also be used to clear the working face. Designed with a chassis inspired by Komatsu excavators, it features a hydraulic motor-driven crawler system, delivering robust performance, strong climbing capability, and agile maneuverability. The machine is capable of operating in damp, waterlogged tunnels.

The crawler excavator loader is divided into two types according to the power form: electric motor power type and diesel engine power type. The equipment consists of seven parts: hydraulic power system, electric control system, working arm, chassis, transport trough, cab system and frame assembly.



Parameter- Electric Type

Project	ZWY-80/30L	ZWY-80/37L	ZWY-80/45L	ZWY-100/45L	ZWY-120/55L	ZWY-150/55L	ZWY-180/75L	ZWY-220/75L	
	Key technical parameters								
Applicable section (width × height) m	3.2 × 2.2	3.5 × 2.5	4 × 2.5	4.8 × 3.2	5.4 × 4.0	5.8 × 4.5	6.2 × 5	7.5 × 5.5	
Applicable roadway slope°	（-16° ~ +16° ）		（-20° ~ +20° ）		（-32° ~ +32° ）				
Loading capacity m ³ /h	80			100	120	150	180	220	
Control method	Liquid pilot control								
Main motor power (KW)	30	37	45		55		75		
Excavation depth (mm)	3200	3500	4000	4600	5400	5800	6200	7000	
Excavation depth (mm)	1550		1600	1800	2150	2500		3300	
Excavation depth mm	1800		2200	3000	3500	3800	4000	4300	
Excavating depth mm	400		500		800	990		1050	
Unloading height (variable) mm	1200				1450			2000	
Unloading distance (variable) mm	1150								
Scraper conveyor structure	Simple chain				Single strand (or double strand)			Double strands	
Speed of travel m/s	0.5								
Ground clearance mm	300								
Grounding pressure (MPa)	≤ 0.1								
Rated working pressure (Mpa)	23								
Maximum Disintegration Size	Long mm	3350						4200	
	Wide mm	850		900	1000	1100		1200	
	Gao mm	1200			1400	1500		1650	
Maximum disassembly weight (kg)		2300				3000		3500	
Operative mode Maximum外形 Size	Long mm	6000	6500			6800	7000	7500	8800
	Wide mm	1750		1800	2200	2350			2640
	Gao mm	1750	1750	1800	2900	3250	3600	3800	4200
Total weight (kg)		7600	8000	8200	11200	13800	15200	17800	20000

Optional components



Milling and cutting machine

Product Presentation

The integrated milling and excavation machine is widely used in open-pit coal mining, tunnel excavation, profile correction, channel and trench milling, asphalt concrete pavement milling, rock and frozen soil excavation, and root milling. Its milling and excavation head employs world-leading cutting-edge technology, efficiently replacing conventional equipment like buckets, breakers, and hydraulic shears. This machine provides a groundbreaking construction method for soil layer excavation or tunnel excavation, suitable for coal or semi-coal roadway excavation with soil hardness below 4f without requiring blasting. In rock roadway excavation, the bucket and milling head can be interchanged, allowing the bucket to collect debris post-blasting, achieving dual functionality in one machine.

To ensure the overall performance of the equipment, the main hydraulic and electromechanical components of the entire system are imported from high-end brands. High-torque hydraulic motors drive the milling and digging head, ensuring it can handle harsh high-load working conditions with ease.

Because of the heavy weight of the milling head, the whole machine adopts the design concept of super strong structural parts to ensure the sufficient weight of the whole machine, the stability of the body when cutting the rock, and the improvement of efficiency.



Parameter

Project		Technical parameter value	
Product model		ZWY-120/55L (X)	ZWY-180/75L (X)
Product line		Normalized form	Normalized form
Apply optimal section range (width × height) (m)		2.6×2.5 or more	2.6×3.5 or more
Applicable roadway slope (°)		-20° ~ +20°	-25° ~ +25°
Loading capacity (m ³ /h)		120	180
Control method		Lead control	Lead control
Main motor power (kW)		55	75
Milling cut width (mm)		4600	5800
Milling distance (from the blade edge) (mm)		1800	3000
Milling height (mm)		3000	3900
Milling depth (mm)		400	950
Unloading height (mm) (variable)		1400	1800
Unloading distance (mm) (variable)		2000	2000
Maximum rotation angle of the working arm (°)		± 45°	± 45°
Maximum transportable dimensions (mm)		< φ 420	< φ 580
Scraper chain structure		Simple chain	Single strand / double strand
Scrapping chain transportation speed (m/min)		44	44
Inner width of track (expandable) (mm)		1000	1100
Walking speed (m/s)		0.5	0.5
Clearance (mm)		300	300
Minimum turning radius (m)		≥ 6	≥ 7
Grounding pressure (MPa)		≤ 0.1	≤ 0.1
Rated working pressure (MPa)		22	23
Maximum disintegration size	Long (mm)	3350	3350
	Wide (mm)	900	1100
	Gao (mm)	1500	1500
Maximum disassembly weight (Kg)		2500	3200
Operative mode Outline dimension	Long (mm)	8800	9800
	Wide (mm)	1800	2150
	Gao (mm)	2000	2450
Total weight (Kg)		12000	13000

Parameter

Parameter

■ The tire-type explosion-proof loader is divided into two specifications according to the loading capacity, 2 tons and 3 tons.



Model		ZL20EFB	ZL20EFB (B)	ZL20EFB (A)	ZL20EFB (C)	ZL30EFB	ZL30EFB (B)	ZL30EFB (A)	ZL30EFB (C)
Dump capacity (m ³)		1				1.7			
Rated load capacity (kg)		2000				3000			
Curb weight		6900 ± 100				10800 ± 100			
Structural style		Articulated steering							
Wheel base (mm)		2270				2680			
Tread (mm)		1640				1800			
Minimum unloading distance (mm)		930				930			
Maximum unloading height (mm)		2500				2850			
Minimum ground clearance (mm)		> 310				> 360			
Dump width (mm)		2140				2520			
Driving mode		Fluid drive							
Drive mode		Four wheel drive							
Transformative form		Fully hydraulic intermediate articulated steering							
Maximum lift-off force (kN)		≥ 66				≥ 95			
Maximum Traction (kN)		≥ 48	≥ 50	≥ 48	≥ 50	≥ 90	≥ 92	≥ 90	≥ 92
Tipping load (kg)		≥ 4400				≥ 6400			
Explosion-proof diesel engine	Model	TKC4105DZLDFB	TKC4110DZLDFB	TKC4105DZLQFB	TKC4110DZLQFB	TKC6105DZLDFB	TKC6110DZLDFB	TKC6105DZLQFB	TKC6110DZLQFB
	Rated power (KW) / Rated speed (r/min)	62/2200	85/2200	62/2200	85/2200	74.5/2200	115/2200	74.5/2200	115/2200
	Diesel engine manufacturer	Yituo (Luoyang) Diesel Engine Co., Ltd.							
Starting mode		Electric explosion-proof starter		Air start		Electric explosion-proof starter		Air start	
Braking type	Service braking	Wet hydraulic brake							
	Emergency parking brake	Wet spring brake							
Maximum operating speed (km/h)		24				36			
Minimum pass Radius of capability (mm)	Inner	3100				3400			
	Outside	5780				6300			
Tire model (front/rear)		16/70-20				17.5-25			
Dimensions (length × width × height) (mm)		5900×2140×2300-2500 (The height of the cockpit can be adjusted)				7050×2520×2245-2725 (The height of the cockpit can be adjusted)			
Climbing ability (°)		14							

Contact Us

Shandong Cresics Equipment Manufacturing Co., Ltd.

Address: Industrial Park, Shiheng Town, Feicheng City, Shandong Province, P.R.China

Contact: Ethan Liu

Head of Overseas Business

Tel / WhatsApp: +86 17864876386

WeChat: 17864876386

Email: liu@cresics.vip

Website: www.cresicsequipment.com