

ROCK DRILLING EQUIPMENT



KAMACH MINING YOUR IDEAL MINING SOLUTIONS!
Website: <http://www.kamach.com> <http://www.kamach.co.uk>
Email: kamach@kamach.com
Skype: kamachmining
Phone: + 86 139 0709 8609
Fax: + 86 791 8828 3731
Address: C213, 948 Torch Avenue, Hi-tech Developing District,
330096, Nanchang, Jiangxi Province, P.R. of China

Please read the operation and maintenance manual carefully first for proper use of the equipment. Kamach will make continual improvement, however, it may not be possible for us to inform you of all improvements to the products. This illustration is only used for reference and will be finally interpreted by Kamach.

All-in-one DTH drill

- ◆ New generation of all-in-one DTH drill, built for high productivity and green intelligent drilling and blasting.
- ◆ The series of drills features a diameter of 90-230mm and a max drilling depth of 36m.
- ◆ Capable of satisfying the needs of drilling vertical, inclined and horizontal holes in various geological conditions, with high drilling efficiency, low energy consumption and environmental protection.
- ◆ Unique one-touch switching between DTH and cutting, soft rock/ hard rock combined in one machine, expanding the range of application, reducing construction cost and improving construction efficiency.

Precise and flexible

- ◆ Multi-degree heavy-duty drilling arm with high load capacity, fast and convenient in positioning
- ◆ Capable of vertical, inclined, horizontal and multi-faceted drilling to meet various geological needs
- ◆ DTH/ cutting mode, hard rock DTH, soft rock cutting, with good adaptability to rock formation
- ◆ Patented Kamach high-torque rotating power head with simple structure, high speed and high torque to avoid jamming and loss of drilling tools
- ◆ Cold-drawn drill frame with good integrity and high strength

Environmentally friendly

- ◆ Cyclone + Laminar Flow Two-stage Dust Removal System configured with High-power Dust removal system
- ◆ Patented Anti-backlash device. With dust removal efficiency of 95% or more

Safety and comfort

- ◆ General four-wheeled track for excavators with reinforced wear-resistant track shoe, large ground clearance and high torque to meet the operational needs of various scenarios
- ◆ FOPS (Falling Object Protect Structure) and ROPS (Roll Over Protection System) certified driver's cab
- ◆ Wide visibility, suspended seats, micro-boosting and fresh air ventilation system for a comfortable working environment

Intelligent and efficient

- ◆ A Brand-new electronic monitoring system shows the parameters of the engine, air compressor and hydraulic system in real time to control the operation status of the drill.
- ◆ Self-diagnosis and alarm of faults for provision of solutions and built-in maintenance advice
- ◆ The hole depth and inclination measurement system enable real-time drilling depth display
- ◆ The rock quartz adapted control system to effectively reduce the chance of jamming and lower tool wear
- ◆ The cloud platform of the Intelligent Internet of Things (IOT) of Kamach can synchronize data transmission, keep the application and drill status under control, and allows efficient management of multiple pieces of equipment
- ◆ RTK Positioning system, with remote hole layout, hole sequence planning and operation statistics report output function to realize platform common bottom control and digital management of rock drilling operation

Strong power

- ◆ World-known brand engine in line with China's national stage IV standards for Oil emission
- ◆ High-Pressure Common Rail+ DOC DPF SCR Technology Upgrade Route
- ◆ Best balance of emission control, economic efficiency and power efficiency
- ◆ Elman's original intake head, which greatly improves working efficiency and enables efficient drilling

Convenient to maintain

- ◆ Easy-to-access maintenance with parameter adjustment able to be easily done on the floor, making it safer, more convenient and more efficient.
- ◆ Maintenance points and parameter adjustment are located at the driver's cab side, so that the adjustment effect can be checked in time to save time



ALL-IN-ONE DTH DRILL

Item	Unit	DE120B	DE138B	DE152B	DE165B	DE200B
Operating parameters						
Drilling range	mm	90-130	115-152	138-165	152-178	165-230
Impactor	-	3,5,4	4,5	5,6	5,6	5,6,8
Drill rod diameter	mm	76	76,89	89,102	102,114	114,127
Drill rod length	m	4m*7	4m*7	6m*6	6m*6	6m*6
Max hole depth	m	28	28	36	36	36
Dust control unit	-	Dry(standard)Water mist(optional)				
Air compressor						
Working pressure	Bar	20	21	21	24	24
Displacement	M ³ /min	17.5	20.3	20.3	28.1	34.6
Engine						
Brand	-	Cummins	Cummins	Cummins	Cummins	Cummins
Model	-	QSC8.3-C260-30	QSL8.9-C360-30	QSL8.9-C360-30	X12CS3375	QSZ13-C550
Power	kW/rpm	194/2200	264/2100	264/2100	336/2100	410/1900
Fuel tank	L	450	590	730	730	730
Propelling system						
Total length of propelling beam	mm	7350	7350	10520	10520	10520
Compensating stroke	mm	1200	1200	1300	1300	1300
Max propelling force	KN	30	30	40	40	40
Forward tilt angle	.	140	140	140	140	140
Flip angle	°	-20~90	-20~90	-20~90	-20~90	-20~90
Drill arm						
Lifting angle	°	50~-20	50~-20	50~-30	50~-30	50~-30
Swing angle	.	L20 R32	L20 R32	L15 R45	L15 R45	L15 R45
Traveling ability						
Traveling speed	km/h	3.2	3.2	3.2	3.2	3.2
Max traction	KN	100	100	125	125	125
Climbing capacity	°	25	25	25	25	25
Track frame swing angle	.	±10	±10	±10	±10	±10
Ground clearance	mm	438	438	480	480	480
Rotating power head						
Rotational speed	rpm	0-110	0-110	0-105	0-105	0-95
Rotational torque	Nm	3000	3800	4500	5500	5650
Boundary dimension						
Weight	kg	14500	15500	22500	23500	24000
Length x width x height(working)	m	7.9x2.5x7.65	8.2x2.5x7.65	9.2x2.7x10.6	9.5x2.7x10.6	9.5x2.78x10.6
Length x width x height(transportation)	m	9.98x2.5x3.42	10.25x2.5x3.42	11.7x2.7x3.6	11.7x2.7x3.6	11.8x2.78x3.6
The optional configuration						
Centralized lubrication, depth sensing, common bottom control system and automatic fire extinguishing system						

ALL-IN-ONE DTH DRILL

Item	Unit	DE120S	DE138S	DE152S	DE165A	
Operating parameters						
Drilling range	mm	90-130	115-152	138-165	152-178	
Impactor	-	3.5,4	4,5	5,6	5,6	
Drill rod diameter	mm	76	76,89	89,102	102	
Drill rod length	m	4m*7	4m*7	6m*6	6m*6	
Max hole depth	m	28	28	36	36	
Dust control unit	-	Dry(standard) Water mist (optional)				
Air compressor						
Working pressure	Bar	20	20	21	20.7	20.7 (optional)
Displacement	M ³ /min	17.6	20.4	22.5	30.3	34 (optional)
Engine						
Brand	-	Cummins	Cummins	Cummins	Cummins	Cummins
Model	-	QSC8.3-C260-30	QSL8.9-C360-30	QSL8.9-C360-30	QS845C131-30-QSM11	QS845, C130 30-QSX15
Power	kW/rpm	194/2200	264/2100	264/2100	97+298/2100	97+336/1850
Fuel tank	L	450	590	730	800	
Propelling system						
Total length of propelling beam	mm	7350	7350	10520	10520	
Compensating stroke	mm	1200	1200	1300	1300	
Max propelling force	KN	30	30	40	40	
Forward tilt angle	.	140	140	140	140	
Flip angle	.	-20-90	-20-90	-20-90	-20-90	
Drill arm						
Lifting angle	-	50~-20	50~-20	50~-30	50~-30	
Swing angle	,	L20 R32	L20 R32	L15 R45	L15 R45	
Traveling ability						
Traveling speed	km/h	3.2	3.2	3.2	3.2	
Max traction	KN	100	100	125	125	
Climbing capacity	-	25	25	25	25	
Track frame swing angle	-	±10	±10	±10	±10	
Ground clearance	mm	438	438	480	480	
Rotating power head						
Rotational speed	rpm	0-110	0-110	0-105	0-105	
Rotational torque	Nm	3000	3800	4500	5500	
Boundary dimension						
Weight	kg	14200	15500	22500	23500	
Length x width x height (working)	m	7.9x2.5x7.65	8.2x2.5x7.65	9.2x2.7x10.6	9.5x2.7x10.6	
Length x width x height (transportation)	m	9.98x2.5x3.42	10.25x2.5x3.42	11.7x2.7x3.6	11.8x2.7x3.6	
The optional configuration						
Centralized lubrication, depth sensing, common bottom control system and automatic fire extinguishing system						

LIGHT ALL-IN-ONE DTH DRILL

Lightweight All-in-One DTH Drill

Adopted two stage screw type compressors for drilling in open-pit coal mines, metallurgical mines and quartz quarries



Reliable gas supply

World-known brand heavy duty two-stage screw compressor with unique sealing grooves at the root and top of the rotor to minimize internal leakage and provide adequate air and air pressure, low shaft power and low energy consumption.

Stable power

Turbocharged engine adopted to offer stable and strong power, low fuel consumption, in line with the national grade M standard, energy saving and environmentally friendly

Intelligent fuel saving

Intelligent control system to precisely control the compressor system according to the actual working conditions and significantly reduce fuel consumption

Automatic drill rod connection and Removal

Highly efficient and quick automatic rod connection and removal device to reduce operator's labor intensity while improving work efficiency and safety

Efficient dust suppression

The two-stage dry dust removal effectively reduces dust pollution, protects the environment and reduces the risk of occupational diseases.

Easy maintenance

The gull-wing side panels provide a spacious maintenance space, and feature easy-to-access maintenance and adjustment points for the engine, compressor and hydraulic system

Easy transfer

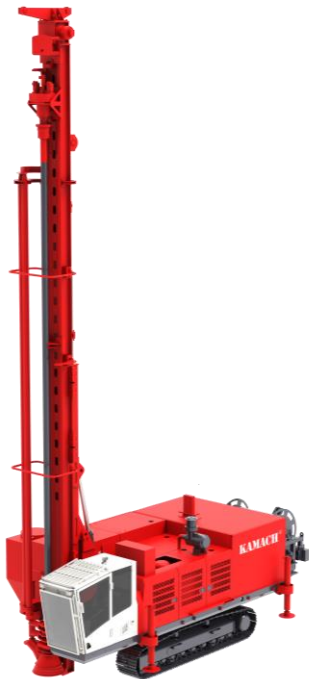
Single-piece crawler with excellent grip performance and good traveling performance in rain and snow and flotsam conditions

Item	Unit	DE120Q	DE138Q
Parameter			
Drilling range	mm	90-130	90-152
Impactor	-	4,5	4,5
Drill rod diameter	mm	76	76
Drill rod length	m	3mx6	3mx6
Max hole depth	m	18	18
Dust removal type	-	Dry(standard)Water mist (optional)	
Air compressor			
Working pressure	Bar	17	20
Displacement	m ³ /min	17.8	20.6
Engine			
Manufacturer	-	YuChai	YuChai
Emission grade	-	China Grade III	China Grade III
Model		YCA07240-T300	YCA08300-T301
Power	kW/rpm	176/2200	220/2200
Propelling system			
Total length of propelling beam	mm	6100	6100
Compensating stroke	mm	1000	1000
Propelling stroke	mm	3950	3950
Max propelling force	KN	20	20
Pitch angle of slide frame	°	135	135
Flip angle	°	-54~50	-54~50
Drill arm			
Lifting angle	°	50~-25	50~-25
Swing angle	°	L45R45	L45 R45
Traveling capacity			
Traveling speed	km/h	2.1/4.2	2.1/4.2
Climbing capacity	°	25	25
Track frame swing angle	°	±10	±10
Rotation			
Rotational speed	rpm	0-110	0-110
Rotational torque	Nm	3000	3500
Boundary dimension			
Weight	kg	9160	9450
Length x width x height (transportation)	m	7.44x2.3x2.76	7.44x2.3x2.76
The optional configuration			
Centralized lubrication, automatic fire extinguishing system			

DIESEL | ELECTRIC ALL-IN-ONE DTH DRILL

Diesel/ Electric All-in-one DTH Drill

- ◆ Diesel/ electric dual-powered, diesel-driven for mobility and flexibility in the field, and electric-powered for energy-saving operation
- ◆ Specially designed transformer with small voltage drops, stable and safe operation, and low energy consumption
- ◆ Dustproof, moisture-proof and vibration-resistant electric components with IP65 protection, featured in green energy, low-carbon and environmental friend lines
- ◆ RoPS & FOPS certified driver's cab with good visibility, exquisite layout, safe and comfortable operation
- ◆ Kamach System for Intelligent Control, Synchronized Data Transmission and Control of Work Status



Item	Unit	DA165C	DA200C
Operating parameters			
Drilling range	mm	138-180	165-255
Impactor	-	5,6	6,8
Drill rod diameter	mm	110,133	146
Drill rod length	m	8.5m*3	10m*3
Max hole depth	m	25	30
Dust control unit	-	Dry(standard)Water mist (optional)	
Air compressor			
Working pressure	Bar	20.7	24.1
Displacement	M ³ /min	28.3	30.3
Engine			
Brand	-	Cummins	Cummins
Model	-	QSB4.5-C130-30	QSB4.5-C130-30
Power	kW/rpm	97/2200	97/2200
Propelling system			
Total length of propelling beam	mm	11500	14000
Compensating stroke	mm	1800	1800
Propelling stroke	mm	9250	10900
Max propelling force	KN	50	75
Traveling ability			
Traveling speed	km/h	3.2	3.2
Max traction	KN	125	175
Climbing capacity	.	25	25
Ground clearance	mm	480	480
Rotating power head			
Rotational speed	rpm	0-105	0-65
Rotational torque	Nm	5500	6000
Boundary dimension			
Weight	kg	28500	31500
Length x width x height (working)	m	8.5x4.68x11.5	8.5x4.68x15.5
Length x width x height (transportation)	m	11.5x3.55x3.5	14x3.55x3.5
The optional configuration			
Centralized lubrication, depth sensing, common bottom control system and automatic fire extinguishing system			

ROTARY DRILL FOR OPEN PIT

Rotary drill with tricone bit for open pit mine

- ◆ High axial pressure, high torque, high rotating speed and large aperture provide excellent productivity for mining operation.
- ◆ Electric/ diesel dual-power system, optional high/ low pressure or low-pressure air compressor, which is energy-saving and green.
- ◆ Electro-hydraulic ratio control system with constant power variable is adopted to adjust operation parameters according to strata movement.
- ◆ Equipped with three-point floating leveling chassis and high-strength truss drill frame for high reliability.
- ◆ Gearwheel rotation and DTH impact modes combined for good adaptability to conditions and wide adaptability of strata.

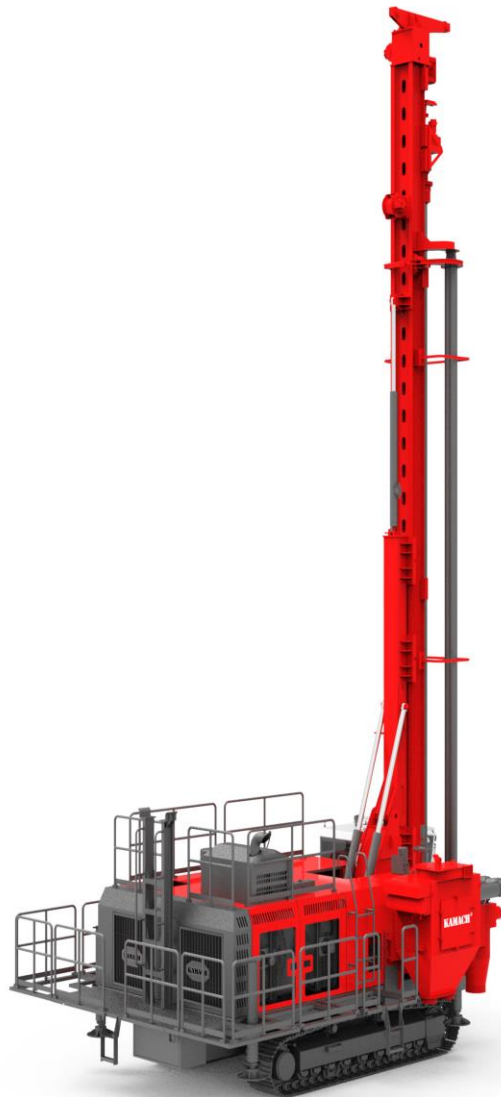


Item	Unit	KY-250D		KY-250E
Drilling method	-	DTH, gear wheel		Gear wheel
Power type	-	Diesel		Electric
Operating parameters				
Hole-forming diameter	mm	165-250		200-270
Economic aperture	mm	165(DTH)/200,230,250(gear wheel)		200,230,250,270
Max drilling depth	m	48		48
Rock hardness	-	f4~f20		f4~f20
Drill rod diameter	mm	133(DTH)/159,178,194(gear wheel)		159,178,194,219
Drill rod length	mm	10000		10000
Air compressor				
Working pressure	m ³ /min	31.1	40	50
Displacement	Bar	20/15	8	5
Power	kW	372	298	250
Hydraulic power				
Manufacturer	-	CUMMINS		-
Model	-	QSM11-C400		-
Power/rotating speed	kW/rpm	298/2100		-
Fuel tank capacity	L	1500		-
Power of motor	kW/V	-		160/380
Propelling system				
Drill stand length	m	15		15
Propelling stroke	m	11.6		11.6
Propelling speed	m/min	34		34
Propelling force	KN	220		350
Axial pressure	KN	270		400
Lifting rate	m/min	65		65
Traveling ability				
Traveling speed	km/h	2		2
Climbing capacity	-	≤20		≤20
Grounding specific pressure	kPa	≤100		≤106
Rotation				
Rotating speed	rpm	0~50(DTH)/0~160(gear wheel)		0~150
Torque	Nm	11000		13800
Power	kW	90		90
Boundary dimension				
Weight	kg	55000		90000
Length x width x height (working)	m	17x5.8x7		17x6.6x7
Length x width x height (transportation)	m	11.5x5.8x17.5		14.5x6.6x17.5
The optional configuration				
automatic centralized lubrication system, wet dust removal system, cab fuel heating and air heating system.				

OVERHEAD DTH DRILL

Overhead DTH drill

- ◆ Four-point hydraulic support leg for good operational stability
- ◆ The industry's first high-drilling frame and long-drilling rod structure for short auxiliary time and low tool consumption
- ◆ ROPS and FoPS compliant driver's cab with good visibility and refined layout for safe and comfortable operation
- ◆ Sunward Cloud System for intelligent control, synchronized data transmission and Control of work status



OVERHEAD DTH DRILL

Item	Unit	DB200B	DB250B	DB200A	
Operating parameters					
Drilling range	mm	165-230	230-270	165-230	
Impactor	-	6,8	8,10	6,8	
Drill rod diameter	mm	146	178/194	146	
Drill rod length	m	10m*3	10m*3	10m*3	
Max hole depth	m	30	30	30	
Dust control unit	-	Dry(standard)Water mist (optional)			
Air compressor					
Working pressure	Bar	24	25	20.7	20.7(optional)
Displacement	m ³ /min	34.6	39.6	30.3	34 (optional)
Engine					
Brand	-	Cummins	CAT	Cummins	Cummins
Model		QSZ13-C550	C18	QSB4.5-C130-30+QSM11	QSB4.5-C130-30+QSM15 (optional)
Power	kW/rpm	410/1900	571/2100	97+298/2100	97+336/1850
Propelling system					
Total length of propelling beam	mm	14000	14000	14000	14000
Compensating stroke	mm	1800	1800	1800	1800
Propelling stroke	mm	10900	10900	10900	10900
Max propelling force	KN	75	75	75	75
Traveling ability					
Traveling speed	km/h	3.2	3.2	3.2	3.2
Max traction	KN	175	175	175	175
Climbing capacity	.	25	25	25	25
Ground clearance	mm	480	480	480	480
Rotation					
Rotational speed	rpm	0-65	0-65	0-50	0-50
Rotational torque	Nm	6000	6000	6000	6000
Boundary dimension					
Weight	kg	30000	32000	30000	30000
Length x width x height(working)	m	8.1x4.6x15.5	8.1x4.6x15.5	8.1x4.6x15.5	8.1x4.6x15.5
Length x width x height (transportation)	m	14x3.25x3.75	14x3.25x3.75	14x3.25x3.75	14x3.25x3.75
The optional configuration					
Centralized lubrication, depth sensing, common bottom control system and automatic fire extinguishing system					